FCWnx 7.7 Professional Edition Installation Manual

UTC Fire & Security
A United Technologies Company

P/N 460646003A • 09AUG11

Copyright © 2011 UTC Fire & Security. All rights reserved.

This document may not be copied in whole or in part or otherwise reproduced without prior written consent from UTC Fire & Security, except where specifically permitted under US and international copyright law.

Disclaimer The information in this document is subject to change without notice. UTC Fire & Security assumes no responsibility for inaccuracies or omissions and specifically disclaims any liabilities, losses, or risks, personal or otherwise, incurred as a consequence, directly or indirectly, of the use or application of any of the contents of this document. For the latest documentation, contact your local supplier or visit us online at www.utcfireandsecurity.com.

This publication may contain examples of screen captures and reports used in daily operations. Examples may include fictitious names of individuals and companies. Any similarity to names and addresses of actual businesses or persons is entirely coincidental.

Trademarks and patents The Facility Commander Wnx name and logo are trademarks of UTC Fire & Security.

Other trade names used in this document may be trademarks or registered trademarks of the manufacturers or vendors of the respective products.

Intended use Use this product only for the purpose it was designed for; refer to the data sheet and user documentation for details. For the latest product information, contact your local supplier or visit us online at www.utcfireandsecurity.com.

FCC compliance This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

You are cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Certification and compliance CE

2002/96/EC (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.

Manufacturer UTC Fire & Security

HQ and regulatory responsibility:
UTC Fire & Security, 9 Farm Springs Road, Farmington, CT 06034-4065, USA

Contact information For contact information see our Web site: www.utcfireandsecurity.com.

Content

Preface iv
Safety terms and symbols iv
Related documentation iv

Chapter 1 **Introduction to Facility Commander Wnx 1**
Recommended minimum requirements 1
Before you begin 4
Installation and setup outlines 4

Chapter 2 **Windows 7, Vista, and XP Professional system setup 7**
Preinstallation checklist 8
Network card 8
Configuring the computer for the network 9
Installing the operating system 9
Setting up your monitor 10
Setting the network properties 11
Defining user accounts and passwords 12
Items specific to Windows XP Professional 13
Items specific to Windows Vista 14
Items specific to Windows 7 15
What's next? 16

Chapter 3 **Install Facility Commander Wnx Professional Edition server 17**
Installing Facility Commander Wnx 18
Licensing your Facility Commander Wnx system 24
Configuring security settings 25
Setting services to automatic startup 25
Server folder structure 27
Facility Commander Wnx user accounts 28
What's next? 29

Chapter 4 **License and Set Security Settings for your FCWnx System 31**
Licensing Facility Commander 31
About Facility Commander Wnx license summary 38
SecurityCnfg Utility 39
What's next? 43

Chapter 5 **Installing Facility Commander Wnx Software on additional clients 45**
Reaching the First Time License computer over the network 46

Installing Facility Commander Wnx on additional client computers 48
Licensing the client computer 55
Configuring security settings 55
Setting services to automatic startup 55
Logging on to client computer 57
Viewing Imaging status 58
Client folder structure 60
What's next? 61

Chapter 6 Logging on and configuring Facility Commander Wnx 63
Facility Commander Wnx services overview 64
Starting Facility Commander Wnx 66
Logging on 67
Accessing help 68
Defining additional user accounts 68
Initial setup of Facility Commander Wnx records 69
Setting up e-mail accounts 69
Changing the Facility Commander Wnx server computer name 69

Chapter 7 Logging off and shutting down 75
Exiting Facility Commander Wnx 75
Automatic client shutdown 77

Chapter 8 Back up and restore your FCWnx Professional system 79
Overview 80
FCWnx Professional system recovery checklist 80
Backing up 81
Restoring 83

Chapter 9 Uninstall Facility Commander Wnx or delete a database 87
Uninstalling Facility Commander Wnx software 87
Deleting the database 90
Removing Microsoft SQL Server 2008 Express 91

Chapter 10 Troubleshooting, maintenance, support 93
Troubleshooting 93
Database creation errors 94
Contacting technical support 97

Appendix A UL certification requirements 99
UL specifications and requirements 99

Appendix B Optional hardware and software 101
Installing FCWnx on a thin client terminal server 101
Setting up a Digi serial-port expander 103
Setting up dial-up modems 104
Setting up the Fargo DTC550 printer/encoder for smartcard encoding with FCWnx 105

Appendix C CCTV Interfaces 109
Overview 110
Software requirements 110
American Dynamics system 111
Burle Allegiant system 117
Kalatel system 123
Pelco system 129
Mapping FCWnx alarms to CCTV alarms 135
Monitoring 136
Diagnostics 136
Removal of CCTV client interface 136

Preface

Welcome to Facility Commander 7.7 Wnx Professional Edition. This manual provides information for system administrators to set up, install, and configure a Facility Commander Wnx Professional Edition system.

Throughout this manual, reference to Facility Commander Wnx is represented as “FCWnx” in text content to avoid repetition.

Safety terms and symbols

These terms may appear in this manual:

Caution: Cautions identify conditions or practices that may result in damage to the equipment or other property.

WARNING: Warnings identify conditions or practices that could result in equipment damage or serious personal injury.

Related documentation

For more information, refer to the following:

- *Facility Commander Wnx Online Help System:* Provides reference information, such as window and field descriptions, along with instructions for system administrator duties, such as configuring controllers.
- *Facility Commander Wnx 7.7 Upgrade Manual*. Provides instructions for upgrading your Secure Perfect or Diamond II system to Facility Commander Wnx 7.7.
- *M5PXNplus and M2000PXNplus Upgrade Instructions*. Provides instructions for upgrading to the PXNplus CPU board.
- *M3000 Installation Manual*. A guide to mounting and installing the M3000 panels and associated boards.
- *M5 Installation Guide*. A guide to mounting and installing the M5 panels and associated boards.

- *Micro/PX-2000, PXN-2000, and M2000PXNplus Installation Manual*. This guide provides mounting and installation instructions for the PX-2000 and PXN-2000 microcontrollers.
- *DirecDoor Quick Guide*. Provides brief instructions on mounting and configuring the DirecDoor controller.
- *Diamond II User Manual*. This document provides instructions for the installation, configuration, and operation of the Diamond II software.
- *ACU Networked Intelligent Controllers Hardware Installation Manual*. Provides instructions for installation and wiring for ACU controllers and associated hardware.

These documents and others are included on the documentation disc shipped with your Facility Commander Wnx system, in PDF format. You must have Adobe Acrobat Reader installed on your computer to view PDF documents. For your convenience, a copy of the Adobe Acrobat Reader software is included on the disk.

Chapter 1
Introduction to Facility Commander Wnx

Summary

This chapter provides a list of prerequisites for successful operation of a Facility Commander Wnx system, as well as step-by-step instructions for installation. Follow instructions in the order presented.

Content

Recommended minimum requirements 1
- Hardware 2
- Software 3
- Integrated video management 3

Before you begin 4
Installation and setup outlines 4
- Prepare and install FCWnx Professional server computer 5
- Prepare and install a FCWnx client computer 6

Recommended minimum requirements

Facility Commander Wnx is designed to operate on a system that meets these minimum requirements for hardware and third party software.

When configuring a database server to utilize RAID technology, we do not recommend using RAID5. Contact Technical Support for information on RAID configurations.

Hardware

The minimum hardware requirements for server and client computers are listed below.

Server

The following are minimum hardware requirements for server computers:

- P4 2 GHz
- 2 GB RAM
- DVD-R drive
- 10/100 Mb network card
- 1024 by 768 resolution, 16-bit color display
- 10 GB available hard drive space
- Hard drive space will vary depending on your system environment. If you elect to partition your hard drive, verify that sufficient space remains in your system drive for your program files to load properly.

The following items are recommended:

- Approved modems if using dial-up controllers
- Recommended: Ability for remote Internet access support

Client

The following are minimum hardware requirements for client computers:

- P4 2 GHz
- 2 GB RAM
- DVD-R drive
- 10/100 Mb network card
- 1024 by 768 resolution, 16-bit color display
- 1 GB available hard drive space

  Hard drive space will vary depending on your system environment. If you elect to partition your hard drive, verify that sufficient space remains in your system drive for your program files to load properly.
- If using imaging, an image capture device, such as a USB or USB2.0 camera

  USB cameras are available from UTC Fire & Security. For a list of approved cameras, printers, and signature pads, refer to ImageWare's web site: http://www.iwsinc.com.

Note: If using the Digital Video Surveillance option, increasing the processor speed and memory may be required to increase performance in your specific system.

Software

Server and client

The following table lists the supported operating system software requirements and configurations for Facility Commander Wnx 7.7 Professional Edition.

Table 1: Professional edition software requirements

Windows Server OS	Window Client OS	Server database
XP Pro SP3, 32-bit	XP Pro SP3, 32-bit	SQL Server 2008 Express SP1, 32-bit
Vista SP2, 32-bit	Vista SP2, 32-bit	
Win7, 32-bit	Win7, 32-bit	
Vista SP2, 64-bit	Vista SP2, 32-bit Vista SP2, 64-bit	SQL Server 2008 Express SP1, 64-bit
Win7, 64-bit	Win7, 32-bit Win7, 64-bit	

- .NET Framework 3.5 SP1

  Note: If .NET Framework 3.5 is installed on your system, it must be uninstalled before you upgrade to .NET Framework 3.5 SP1.
- Windows Installer 4.5
- Recommended: Ability for remote Internet access support

Integrated video management

Due to the demanding nature of streaming video over IP, managing multiple video streams from the newly introduced support for SymSuite and VisioWave devices requires increased CPU processing power, memory, and network bandwidth. System-wide video performance is equally affected by the resolution, frame rate, and quality settings of individual video streams and should be adjusted accordingly as supported by the SymSuite and VisioWave devices.

FCWnx servers and/or client workstations used for hosting video devices or viewing multiple video streams should meet the following minimum requirements

- CPU: Dual processor/Dual core or Single processor/Quad core at 2.XX GHz or higher
- RAM: 2 GB or higher
- NIC: 1 Gb
- Video: Graphics card hardware support for DirectX 9 with Pixel Shader 3

Before you begin

If you received a Facility Commander Wnx system from UTC Fire & Security, your system was licensed according to your purchased items such as number of clients, number of readers, and number of Imaging clients.

At this time, you are ready to go to Chapter 6 “Logging on and configuring Facility Commander Wnx” on page 63.

Installation and setup outlines

Before you proceed, make sure that your peripheral system hardware (such as controllers, readers, and network lines) is installed and running. The tables that follow outline the steps to set up a Facility Commander Wnx system.

Upgrades

If you are upgrading from:

- A previous version of Facility Commander Wnx, refer to the appropriate upgrade PDF document on the documentation disc.
- Diamond II software, refer to the appropriate upgrade PDF document on the documentation disc.
- Secure Perfect, refer to the appropriate upgrade PDF document on the documentation disc.

Prepare and install FCWnx Professional server computer

Tasks

Table 2: Steps to prepare and install a Facility Commander Wnx Professional server computer

Task		Reference
A	Check minimum hardware and software requirements.	page 1
B	Install network card.	page 8
C	If this server will be part of an existing domain, you will need to add it to the primary domain controller of that domain.	page 9
D	If using Imaging, an image capture device, such as a USB or USB2.0 camera.	Refer to the instructions that came with your image capture device.
E	Prepare operating system: Windows Vista (Ultimate, Business or Enterprise), or Windows XP Professional	page 9
F	Prepare for installation.	page 18
	Install Facility Commander Wnx software.	
	• Typical	page 20
	• Custom	page 21
G	Obtain license.	page 32
H	Enter the Facility Commander Wnx license key.	page 33
I	Configure security settings.	page 25
J	Set services to Automatic Startup.	page 25
K	Log on to the Facility Commander Wnx server computer.	page 64
L	If applicable, set up Imaging Logins.	page 58
M	OPTIONAL: If you plan on using dial-up controllers on this computer, set up the modems.	page 104
N	If purchased, install and set up the CCTV software and hardware.	page 109
O	Install Facility Commander Wnx on additional clients, if applicable.	page 6
P	Set up the application.	Refer to the document *Facility Commander Wnx User Manual* on the documentation CD.

Prepare and install a FCWnx client computer

Tasks

Repeat these steps for each client computer.

Table 3: Steps to prepare a Facility Commander Wnx client computer

Task		Reference
A	Check minimum hardware and software requirements.	page 1
B	Install network card.	page 8
C	If this Client will be part of an existing domain, you will need to add it to the primary domain controller of that domain.	page 9
D	If using imaging, an image capture device, such as a USB or USB2.0 camera	Refer to the instructions that came with your image capture device.
E	Prepare operating system: Windows Vista or Windows XP Professional	page 9
F	Prepare for installation.	page 48
	Install Facility Commander Wnx software.	
	• Typical	page 50
	• Custom	page 52
G	License the client computer.	page 33
H	Configure security settings	page 25
I	Set services to Automatic Startup.	page 25

Chapter 2
Windows 7, Vista, and XP Professional system setup

Summary

This chapter provides specific information about setting up a Windows 7, Windows Vista, or Windows XP Professional computer as an FCWnx Professional server computer or client computer. We recommend that you read these sections carefully before you begin the installation. Perform the steps in the order given. Each client computer will run the FCWnx application and Imaging package.

Content

Preinstallation checklist 8
Network card 8
Configuring the computer for the network 9
    Determining computer type 9
    Adding the computer to an existing domain 9
Installing the operating system 9
    Assigning user passwords 10
Setting up your monitor 10
Setting the network properties 11
    Windows XP Professional 11
    Windows Vista and Windows 7 12
Defining user accounts and passwords 12
    Defining user accounts 12
Items specific to Windows XP Professional 13
    Disable simple file sharing 13
    Firewall exceptions list 14
Items specific to Windows Vista 14
    Windows communication foundation HTTP activation 14

Firewall exceptions list 14
Items specific to Windows 7 15
Windows communication foundation HTTP activation 15
Firewall exceptions list 15
What's next? 16

Preinstallation checklist

To prepare your Windows 7, Windows Vista, or Windows XP Professional computer, refer to this checklist of reminders:

Note: If you purchased this system from UTC Fire & Security, these tasks were completed for you.

- Meet the minimum recommended hardware and software requirements.
- Install the network card.
- Configure the computer for the network.
- Install Windows 7, Windows Vista, or Windows XP Professional with the appropriate Service Packs.
- Set the monitor resolution to a minimum of 1024 by 768 pixels.
- Set the network properties.

Network card

Note: If you purchased this system from UTC Fire & Security, the network card is installed for you.

If it is not already installed, install the network card now. Follow the instructions included with the board. Verify that you are using the same network card speed as the existing network. Refer to the Microsoft Installation Guide for details of a network card configuration or obtain information at www.microsoft.com/technet.

For Windows 7 operating systems, if you are using multiple network interface cards (NICs) for FCWnx related use, make sure that you choose the same network profile for each NIC. When attaching your NIC to a new (not previously configured) network, a popup window opens asking whether this new network is Home, Work or Public. Make sure you choose the same for both NICs so that when FCWnx is installed and SecurityCnfg is run, the profile will have the correct FCWnx ports open.

Configuring the computer for the network

Determining computer type

Before you continue, consult with the network administrator before adding any computers to an existing network.

The system computer can be:

- Part of a new or existing workgroup.
- Part of an existing domain. (See “Adding the computer to an existing domain” below.)

Note: Setup will be different depending on which option you choose. Decide the configuration type before you continue with the installation.

Adding the computer to an existing domain

If the Professional computer will be part of an existing domain, you will need to add the computer to the network. Since network configuration varies, see your network administrator for assistance.

Note: If your FCWnx server computer and client computers are part of a workgroup, add the workgroup name during the installation. We suggest using FCWNX. Write down the server name and workgroup name as these are required during the client installation.

It is important that the FCWnx server and Client systems use the same network properties. Refer to “Setting the network properties” on page 11 for more information or consult with your network administrator.

Installing the operating system

The FCWnx Professional server computer *must* be running Windows 7, Vista or XP Professional with any applicable Service Packs. If the operating system is not already installed on your computer, install it now.

If you purchased this system from UTC Fire & Security, the operating system is installed for you.

WARNING: The computer must not be configured for Sleep Mode or Hibernate Mode. All Facility Commander Wnx services, such as monitoring and transferring events or alarms will not function if the computer is in Sleep Mode or Hibernate Mode. Make sure that your computer setting for Sleep Mode and Hibernate Mode is set to NEVER. It is also a good practice to set your "Turn off display" setting to Never. Refer to the documentation that came with your version of Windows for details on these settings or check with your IT department.

Note: For the Credential Designer features to function properly, the Windows operating system must be installed on drive C:\.

Insert the Windows 7, Vista or XP Professional Installation DVD in your DVD drive and follow the instructions provided in the documentation that came with your software.

Note: This section represents an overview of the installation procedure and does not provide step-by-step instructions to install the operating system.

During the installation of the operating system, you will be asked to select a file system type. For added security, we recommend that you select NTFS.

For additional information, consult your Microsoft documentation.

Assigning user passwords

We recommend that you assign a password to all user accounts. This avoids security permission issues when attempting to access remote client computers.

Refer to your Windows documentation for additional information on setting up a user and assigning passwords.

Setting up your monitor

The minimum recommended monitor resolution required for FCWnx is 1024 by 768. If using Imaging, the minimum color resolution is High Color (16-bit).

To access the display settings:

1. Right-click your mouse on the desktop.
2. Select Properties from the menu.
3. Click the Settings tab in the Display Properties window.
4. Change the Screen resolution to at least 1024 by 768 pixels.
5. Change the Color quality to at least 16 bit if using imaging.

6. Click Apply.
7. Click OK.

Setting the network properties

It is important that the same network properties are used for both the FCWnx server and client computers.

Windows XP Professional

To check the network settings:

1. Right-click My Network Places.
2. Select Properties from the shortcut menu.
3. Right-click the Local Area Connection icon, and then select Properties. The Local Area Connection Properties window opens.
4. Select Internet Protocol TCP/IP.
5. Click Properties.
6. Select one:
   - Obtain an IP address automatically
   - Use the following IP address:

   Note: FCWnx computers do not require static IP addresses. However, if you selected Use the following IP address option, you must obtain a valid IP address from the network administrator, or use a local IP address that no other computer is using in your network. Consult your network administrator for detailed instructions.
7. Click OK.
8. Click OK to exit Local Area Connection Properties.
9. After Windows is installed, restart the computer and make sure it is connected to the network. Verify that you do not have any hardware errors under Device Manager.

Windows Vista and Windows 7

To check the network settings:

1. Click Start, and then click Control Panel.

   Category view: Click Network and Internet, and then click Network Sharing Center.

   Classic view: Double-click Network Sharing Center.

2. Click Manage network connections.
3. Right-click the Local Area Connection, and then select Properties. The Local Area Connection Properties window opens.
4. Select Internet Protocol Version 4 (TCP/IPv4) and Version 6 (TCP/IPv6).

Note: If Version 6 is enabled on the server, it must be enabled on the client.

5. Click Properties.
6. Select one:

   - Obtain an IP address automatically
   - Use the following IP address:

   Note: FCWnx computers do not require static IP addresses. However, if you selected “Use the following IP address” option, you must obtain a valid IP address from the network administrator, or use a local IP address that no other computer is using in your network. Consult your network administrator for detailed instructions.

7. Click OK.
8. Click OK to exit Local Area Connection Properties.
9. After Windows is installed, restart the computer and make sure it is connected to the network. Verify that you do not have any hardware errors under Device Manager.

Defining user accounts and passwords

Defining user accounts

This section addresses adding additional user accounts and assigning user passwords.

The User Accounts selection in Control Panel allows you to add users to your computer and to add users to a group. Permissions and user rights are usually granted to groups. By adding a user to a group, you give the user all the permissions and user rights assigned to that group.

During installation of the FCWnx application, the user group SPAdmin is created. Users must be a member of the SPAdmin group to perform most of the tasks necessary to operate the FCWnx system.

The user "secure" is automatically created during installation, and is part of the "Users" and "SPAdmin" group by default.

Note: If you do choose to add additional users, you must assign them to the group “SPAdmin” after FCWnx is installed.

Items specific to Windows XP Professional

Disable simple file sharing

Simple File Sharing is a feature in Windows XP that removes file sharing security options available in other version of Windows. This setting must be disabled for FCWnx to operate successfully between servers and clients. Once the user sets the permission, the user and clients have access to shared files and the ability to assign passwords to shares.

To disable simple file sharing:

1. Double-click My Computer on the Windows XP desktop.
2. From the Tools menu, select Folder Options to open a Folder Options window.
3. Click the View tab and locate the Use simple file sharing (Recommended) check box in the list of Advanced Settings.
4. To disable Simple File Sharing, ensure this check box is not checked. Click inside the check box to disable the option. (The Simple File Sharing check box should be at or near the bottom of the Advanced Settings list.)
5. Click OK to close the Folder Options window. The settings for Simple File Sharing are now updated; no computer restart is required.

Enabling Simple File Sharing prevents the ability to assign user-level passwords to shares. When Simple File Sharing is enabled on a computer, remote users are not prompted for a password when accessing that computer’s shares.

If the Windows XP Professional computer is part of a Windows domain rather than a Windows workgroup, this process for enabling or disabling Simple File Sharing has no effect. Simple File Sharing always remains disabled for computers joined to domains.

Firewall exceptions list

If the Firewall is selected ON, File and Printer Sharing on the Firewall Exceptions list must be enabled.

To enable File and Printer Sharing:

1. Click Start, and then click Control Panel.
2. On the control panel, double-click Security Center, and then click Windows Firewall.
3. On the Exceptions tab, make sure that File and Printer Sharing check box is checked, and then click OK.

Items specific to Windows Vista

Windows communication foundation HTTP activation

Windows Communication Foundation HTTP Activation must be enabled.

To enable Windows Communication Foundation HTTP Activation:

1. Click Start, Control Panel, and then Programs and Features.
2. Select Turn Windows features on or off from the Tasks panel on the left.
3. Search for Microsoft .NET Framework 3.5.1, and then expand the folder. Make sure the Windows Communication Foundation HTTP Activation check box is checked, and then click OK.

Firewall exceptions list

If the Firewall is selected ON, the following must be enabled in the Firewall Exceptions list:

- File and Printer Sharing
- Network discovery
- Workgroup Only: Remote Administration

To enable Firewall Exceptions selections:

1. Click Start, and then click Control Panel.
2. On the control panel, click Security Center, and then click Windows Firewall.
3. On the Exceptions tab, make sure that the following check boxes are checked, and then click OK.
    - File and Printer Sharing
    - Network discovery
    - Workgroup Only: Remote Administration

Items specific to Windows 7

Windows communication foundation HTTP activation

Windows Communication Foundation HTTP Activation must be enabled.

To enable Windows Communication Foundation HTTP Activation:

1. Click Start, Control Panel, and then Programs.
2. Under Programs and Features, click Turn Windows features on or off.
3. Search for Microsoft .NET Framework 3.5.1, and then expand the folder. Make sure the Windows Communication Foundation HTTP Activation check box is checked, and then click OK.

Firewall exceptions list

If the Firewall is selected ON, the following must be enabled in the Firewall Exceptions list:

- File and Printer Sharing
- Network discovery
- Workgroup Only: Remote Administration

To enable Firewall Exceptions selections:

1. Click Start, and then click Control Panel.
2. On the control panel, click System and Security Center, and then click Windows Firewall.
3. On the left pane, click Allow a program or feature through Windows Firewall.

4. On the Allow programs to communicate through Windows Firewall page, make sure that the following check boxes are checked, and then click OK.
    - File and Printer Sharing
    - Network discovery
    - Workgroup Only: Remote Administration (The Remote Administration selection is not available in Windows 7 by default. Refer to your Window 7 documentation for details on enabling this selection.)

What’s next?

You are ready to install FCWnx. Refer to Chapter 3 “Install Facility Commander Wnx Professional Edition server” on page 17.

Chapter 3
Install Facility Commander Wnx Professional Edition server

Summary

This chapter includes instructions for installation of Facility Commander Wnx Professional Edition server software. Follow instructions in the order presented.

Content

Installing Facility Commander Wnx 18
- Before you begin 18
- Starting the installation 18
- Facility Commander Wnx software installation begins 19
- Typical installation 20
- Custom installation 21

Licensing your Facility Commander Wnx system 24
Configuring security settings 25
Setting services to automatic startup 25
Server folder structure 27
Facility Commander Wnx user accounts 28
What's next? 29

Installing Facility Commander Wnx

Before you begin

- Your FCWnx system *will not* install unless minimum requirements have been met. Before you begin, refer to “Recommended minimum requirements” on page 1 and the “Preinstallation checklist” on page 8.
- If you are installing on a non-English operating system, .NET Framework must be installed in the language appropriate for the operating system you are installing. You cannot install FCWnx until this is accomplished.

Starting the installation

Note: If you purchased this system from UTC Fire & Security, FCWnx was installed for you. Skip to Chapter 6 “Logging on and configuring Facility Commander Wnx” on page 63.

To install required components:

1. You must be logged in as the local administrator user. If not, log off and log back on as a user with these permissions. If you are logging on to a domain environment, log off and log on as administrator to the local computer. (If the computer is a domain controller, log on as an administrator to the domain.)
2. Insert the FCWnx installation disc into the CD/DVD drive. When prompted, click Run autorun.exe.

   If the disc does not launch, you must manually start the software. Using Windows Explorer (Window key-E), navigate to the FCWnx Installation disc and double-click autorun.exe.
3. The Facility Commander Wnx Main Menu opens. Click Install FCWnx v7.7.
4. The Facility Commander Wnx introduction page opens. Click Install.

   A series of windows may display as the listed components automatically install if not already there. These components may cause the system to restart when a new version is installed. If your computer restarts, log on as Administrator and installation continues.
   - .NET Framework
   - Windows Installer
   - SQL server

Note: On rare occasions when installing Facility Commander Wnx from a DVD drive, the installation will stall for approximately 10 to 20 minutes from the time you click Install to the time when the Welcome to Facility Commander Wnx 7.7 Installation Wizard page opens. If this occurs, it is most likely caused by your anti virus software. If you have anti virus software running, you must configure it so that the DVD drive is not scanned. Refer to the documentation that came with your anti virus software for details.

5. The FCWnx installation processes update on your system. When the latest versions of each component are updated and identified, FCWnx installation begins, and the Welcome to the Facility Commander Wnx 7.7 Installation Wizard window displays. Continue with “Facility Commander Wnx software installation begins” below.

Facility Commander Wnx software installation begins

Note: A Cancel button displays on every FCWnx installation window. If you click Cancel at any time during the installation, the FCWnx installation process stops, but all Windows components that have been installed must be manually removed.

To install the Facility Commander Wnx application:

1. The FCWnx Welcome window displays. Click Next. The License Agreement window displays.
2. Select I accept the license agreement, and then click Next.

3. Select Typical or Custom.

Table 4: Selecting an installation type

Typical	Custom
Typical installation requires little user interaction and you do not need to make any special choices. Follow instructions in “Typical installation” on page 20.	If you need to accomplish any one of the following tasks, you must select Custom: • Use Credential Aliasing. • Change the password for the Windows logon USERID “secure.” **Note:** If you change the default FCWnx user password, all computers must use the identical FCWnx user replacement password. Continue by proceeding to “Custom installation” on page 21.

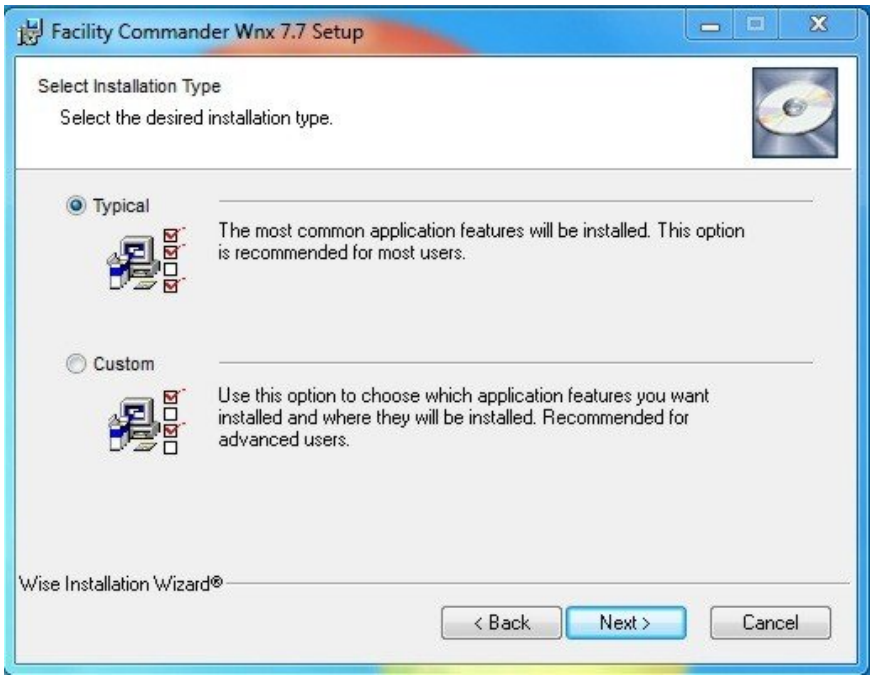
Typical installation

To continue with a Typical installation, follow the instructions below.

To install FCWnx typical installation:

1. In the FCWnx setup window, Typical is chosen by default. Click Next.

Figure 1: Select Typical Installation Type


Facility Commander Wnx 7.7 Setup
Select Installation Type
Select the desired installation type.
Typical
The most common application features will be installed. This option is recommended for most users.
Custom
Use this option to choose which application features you want installed and where they will be installed. Recommended for advanced users.
Wise Installation Wizard®
< Back
Next >
Cancel

2. At the Install FCWnx Client/Server window, select Server, and then click Next. The Ready to Install the Application window displays.
3. The default program folder is indicated. You may want to install FCWnx in another location. Click Browse to navigate to the program folder of your choice.

   Note: For the Credential Designer features to function properly, FCWnx must be installed on drive C:\.
4. Click Next to continue. FCWnx copies system files, updates the system configuration, and displays the Facility Commander Wnx icon on your desktop.

   Note: This may take several minutes.

5. If required, SQL Server 2008 Express is installed, and then the system reboots.

   Windows 7 only: If SQL Server is not installed on your server computer, FCWnx installs SQL Server Express. After SQL Express is installed, the system reboots. After you log back in, the FCWnx installation should proceed automatically. If the installation does proceed within five minutes of logging in, double-click the following file to continue the install:

   `<INSTALL DIR>\FCWnx\SQLExpress\SPMSCRAT.exe`

6. The Create/Convert database window displays and databases are created.
7. After the FCWnx databases have been created, the FCWnx License Setup window opens.

Continue with “Licensing your Facility Commander Wnx system” on page 24.

Custom installation

Caution: Custom installation is recommended for experienced software installers only.

Note: FCWnx components *cannot* be installed individually. However, you *must* select Custom as your installation type if you choose one of the following options:

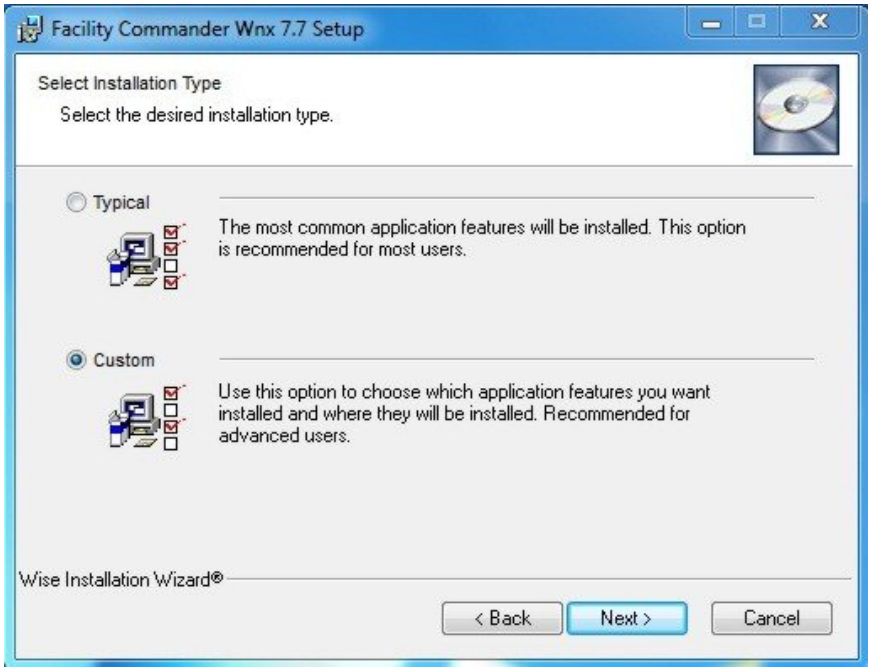
- Credential Aliasing
- Change the password for the Windows logon USERID “secure.”

If you chose a Custom installation, follow the instructions below.

To install FCWnx Custom installation:

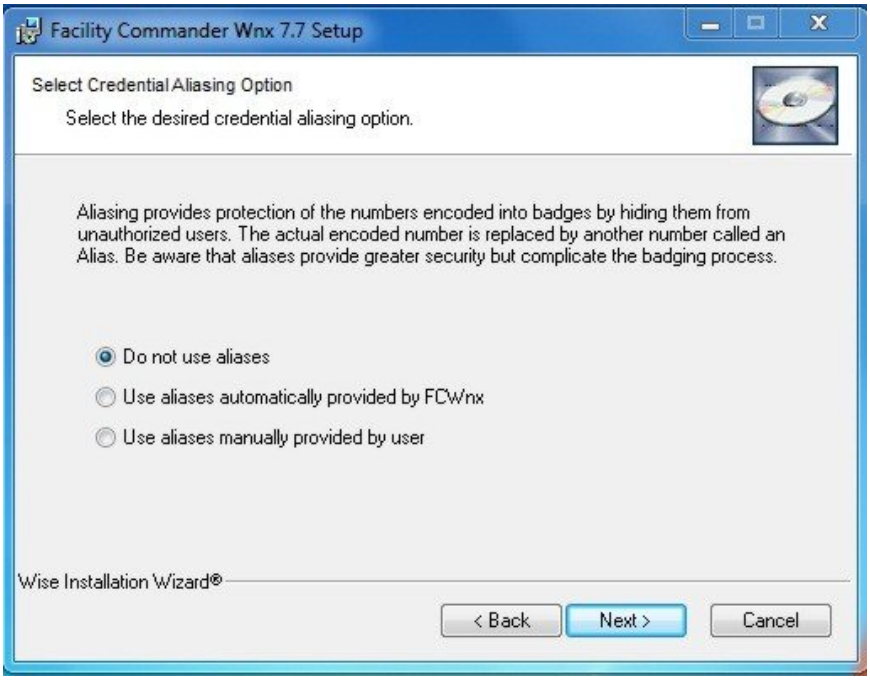
1. Select Custom as the type of installation, and then click Next.

Figure 2: Select Custom Installation Type


Facility Commander Wnx 7.7 Setup
Select Installation Type
Select the desired installation type.
Typical
The most common application features will be installed. This option is recommended for most users.
Custom
Use this option to choose which application features you want installed and where they will be installed. Recommended for advanced users.
Wise Installation Wizard®
< Back
Next >
Cancel

2. At the Install FCWnx Client/Server window, select Server, and then click Next.
3. The Select Credential Aliasing Option window displays as in Figure 3 on page 23.
4. This feature allows you to assign a credential number that represents the encoded credential number. This provides added security in that the encoded number is displayed only to authorized users.
   - Do not use aliases indicates no aliasing will be used.
   - Use aliases automatically provided by FCWnx assigns the credential number for you.
   - Use aliases manually provided by user aliasing allows you to assign the number.

Figure 3: Credential Aliasing window


Facility Commander Wnx 7.7 Setup
Select Credential Aliasing Option
Select the desired credential aliasing option.
Aliasing provides protection of the numbers encoded into badges by hiding them from unauthorized users. The actual encoded number is replaced by another number called an Alias. Be aware that aliases provide greater security but complicate the badging process.
Do not use aliases
Use aliases automatically provided by FCWnx
Use aliases manually provided by user
Wise Installation Wizard®
< Back
Next >
Cancel

5. Choose one aliasing option, and then click Next. The Change the “secure” Password window displays, as in Figure 4 below.

Figure 4: Change the “secure” Password window

Facility Commander Wnx 7.7 Setup
Change the "Secure" password
Change the password for the Windows Logon USERID 'Secure'
The FCWnx installation creates a new Windows USERID called 'Secure'. By default, the password is SecurityMaster08. If your Windows network has security policies that enforce rules for password creation, you may want to change the 'Secure' user password. If you are unsure, ask your System Administrator
Use Default Password
Change Password
New Password
Repeat New Password
Wise Installation Wizard®
< Back
Next >
Cancel

6. The installation creates a new Windows User ID called secure. By default, the password is SecurityMaster08 (case sensitive). If your Windows network has security policies that enforce rules for password creation, you may need to change the secure user password. If you are unsure, ask your system administrator. Select one of the following:
   - Use Default Password
   - Change Password (If you select this option, enter your new password and then enter a second time.)
7. Click Next. The Ready to Install the Application window displays.

   The default destination folder is indicated. You may want to install to another location. Click Browse to navigate to the program folder of your choice for placement of FCWnx files.
8. Click Next to continue.

   FCWnx copies system files, updates the system configuration, and displays the Facility Commander Wnx icon on your desktop. This process may take a few minutes.
9. If required, SQL Server 2008 Express is installed, and then the system reboots.

   Windows 7 only: If SQL Server is not installed on your server computer, FCWnx installs SQL Server Express. After SQL Express is installed, the system reboots. After you log back in, the FCWnx installation should proceed automatically. If the installation does proceed within five minutes of logging in, double-click the following file to continue the install:

   `<INSTALL DIR>\FCWnx\SQLExpress\SPMSCRAT.exe`
10. The Create/Convert database window displays and databases are created.
11. After the FCWnx databases have been created, the FCWnx License Setup window opens.

Continue with “Licensing your Facility Commander Wnx system” below.

Licensing your Facility Commander Wnx system

We recommend that you license your system at this time. The reminder to license is placed at this point to maintain the proper sequence in completing your installation.

Refer to Chapter 4 “License and Set Security Settings for your FCWnx System” on page 31. After obtaining your registered license key as instructed in “Generating a registration key” on page 32, follow one of the sequences listed:

- “First time license” on page 33
- “Running in demo mode” on page 35
- “Second and any additional client licenses” on page 35
- “If you do not license during the Facility Commander Wnx installation sequence” on page 37

Reminder: When you have completed a successful licensing sequence, return to this point and continue.

After a successful licensing sequence or if you click Cancel to license at another time, continue with “Configuring security settings” below.

Configuring security settings

The Security Configuration utility launches immediately following the License Setup and assists you in configuring firewall and DCOM settings on your computer. Check with your IT department for company-specific network settings.

Refer to “SecurityCnfg Utility” on page 39 for more details on using this utility.

After successfully configuring the security settings:

- You will receive a Facility Commander Wnx Installation Complete dialog box. Click Yes to restart your computer.
- Log on as administrator and continue with “Setting services to automatic startup” below.

Setting services to automatic startup

Note: At this point in the installation, the FCWnx services are stopped.

Now, you need to change the startup method of the FCWnx services to automatic. This means every time the computer starts, the FCWnx services start. Refer to “Facility Commander Wnx services overview” on page 64, for additional information about FCWnx services.

To set the startup method of FCWnx services:

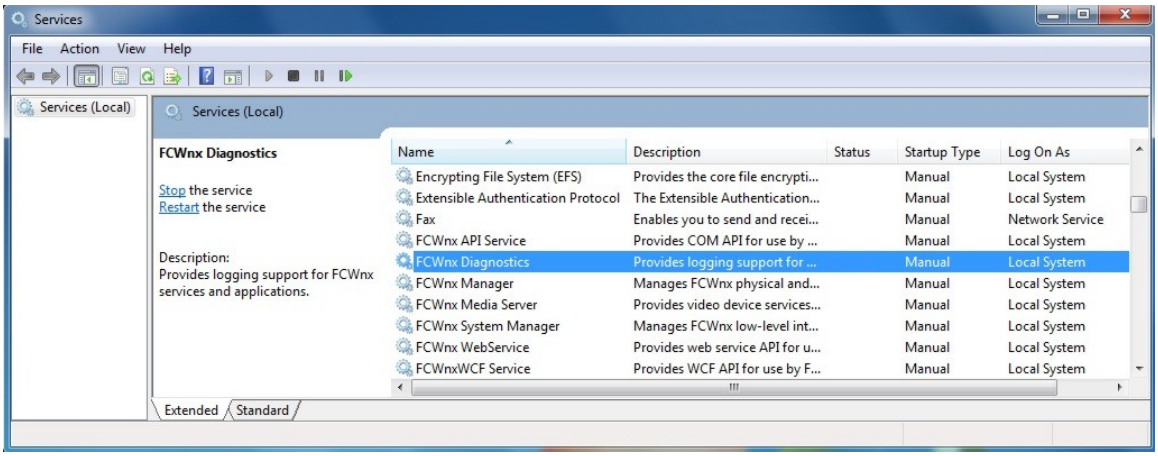
1. Click Start, and then click Control Panel.

Category view: Click Performance Maintenance, Administrative Tools, and then click Services.

Classic view: Click Administrative Tools, and then click Services.

2. The Services window displays. Expand the list of services and scroll down.

Figure 5: FCWnx component services



3. Select FCWnx Diagnostics.
4. The status will be either Started or blank. If it is blank, then the service is not running.
5. Right-click, and then select Properties. In the Startup type field, select Automatic.
6. Click Apply, and then OK to close the window.
7. Repeat steps 3 through 6 for the following services:
   - FCWnx Manager
   - FCWnx Media Server
   - FCWnx System Manager
   - FCWnx WebService
   - FCWnx WCF Service

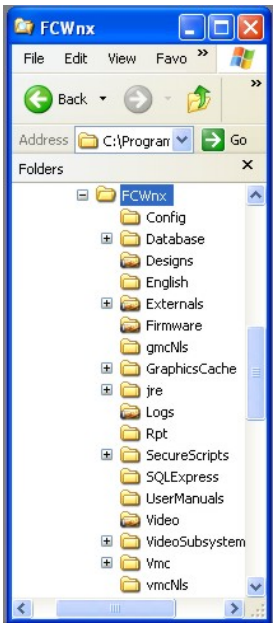
   Note: FCWnx API Service is used when an external system is sending or receiving transactions by way of an Application Program Interface (API) to FCWnx.
8. When all services are configured, close all windows and applications.
9. Restart the FCWnx server computer.

Server folder structure

During installation of the FCWnx software, the folders shown in Figure 6 below and listed in Table 5 below are created. The folders displayed in your FCWnx folder (the default is Program Files\GE\FCWnx) vary with the type of installation:

Some of the folders are shared. Shared folders illustrate a hand under the folder icon as shown in Figure 6 below. This allows other computers to gain access to the information stored in these folders, when logged in as an authorized user.

Figure 6: Typical server folder structure



To learn more about the folders in your FCWnx directory, review these descriptions:

Table 5: Server folder descriptions

Folder name	Description
Config	A folder that contains website configurations for the FCWnx Web Service. The FCWnx Web Service is used by VMC to communicate with FCWnx.
Database	A folder that contains the system database files along with the archive and history database files. SQL Server log files for each database are also found in this folder.
Designs	A shared folder that contains all credential designs used by the imaging stations and sample credential designs.
English	The files required to display the FCWnx client software in English. As more languages are installed, more language-specific folders display.

Folder name	Description
Externals	A shared, empty folder created to store reports created by third party report generators.
Firmware	A shared folder that contains the firmware or application code needed to flash controllers.
gmcNls	A folder that contains the language support files for the Graphics Monitoring and Control (GMC) application. After the base install of FCWnx, these folders are empty as no language kits have been installed yet. As the language kits are installed, the language support files are placed in this folder.
GraphicsCache	A folder that contains the working data files for the GMC application.
jre	A folder that contains the Java Runtime Environment used by GMC and Video Management Console (VMC).
Logs	A shared folder that contains the FCWnx diagnostic log files.
Rpt	A folder that contains files used by the report engine to create FCWnx reports.
SecureScripts	The scripts and programs used to create the database in SQL Server. It also contains subfolders required for converting and upgrading FCWnx systems to FCWnx.
SQLExpress	This folder displays only following FCWnx Professional server Typical installation. The user may use these files if reinstallation of SQL Server Express is required. These files are used by the system during installation of FCWnx.
UserManuals	A folder that contains the FCWnx and GMC User Manuals in PDF format.
Video	A shared folder that contains captured video files.
VideoSubsystem	A folder that contains the dlls that enable communication between FCWnx and VMC.
Vmc	A folder that contains the Java code for the Video Monitoring and Control (VMC) application.
vmcNls	A folder that contains the language support files for the VMC application. After the base install of FCWnx, these folders are empty as no language kits have been installed yet. As the language kits are installed, the language support files are placed in this folder.

When you have completed your review of the folders in your FCWnx directory, continue with “Facility Commander Wnx user accounts” below.

Facility Commander Wnx user accounts

During the FCWnx server computer installation, a default FCWnx local user account was set up for you. If you choose to add users and assign or change user passwords, review “Defining user accounts” on page 12.

Note: Default local group is SPAdmin. Default local user name is secure and the password is SecurityMaster08 (case sensitive).

For additional information on configuring users and assigning passwords, refer to the documentation that came with your Windows 7, Windows Vista, or Windows XP operating system.

What's next?

If you have not already removed the installation disc from your CD/DVD drive, do so now. You have completed the server computer setup. Proceed with one or more of the following:

- If you have not licensed your system, do so now. Refer to Chapter 4 "License and Set Security Settings for your FCWnx System" on page 31.
- Proceed to set up the additional client computers on your FCWnx system. Refer to Chapter 5 "Installing Facility Commander Wnx Software on additional clients" on page 45.
- Proceed to configure your FCWnx system. Refer to Chapter 6 "Logging on and configuring Facility Commander Wnx" on page 63.

Chapter 4
License and Set Security Settings for your FCWnx System

Summary

This chapter details procedures to follow when licensing your new Facility Commander Wnx system. Follow instructions in the sequence presented.

Keep in mind that you may have to return to a previous chapter of this manual to continue the installation sequence following the licensing process.

Content

Licensing Facility Commander 31
- Generating a registration key 32
- Entering the license key 33

About Facility Commander Wnx license summary 38
SecurityCnfg Utility 39
What's next? 43

Licensing Facility Commander

Note: If you purchased this system from UTC Fire & Security, the license key is entered for you.

The Licensing program is used to enter the license key for Facility Commander Wnx. The license key controls the following:

- Number of client licenses

  You can install Facility Commander Wnx on any number of computers. The license controls the number of concurrent clients connected to the server computer.
- Number of Standard Photo Imaging licenses
- Number of Enhanced Photo Imaging licenses

  You can install Imaging on any number of computers. The license controls the number of Imaging stations active at the same time.
- Number of readers
- Number of cameras
- Number of API connections
- Thin Client enabling
- Expiration date of the license
- Client Redundancy enabling
- Visitor enabling
- Guard Tours enabling (micro controllers only)
- Graphics enabling
- Types of controllers
- Deployment parameters
- DVR types supported (this list displays all licensed video devices)
- OH Receiver interface

A summary of this information can also be viewed by selecting About... from the application help menu.

Generating a registration key

To obtain a license key, contact UTC Fire & Security Customer Support as follows. Have the barcode from the software box and machine seed key available.

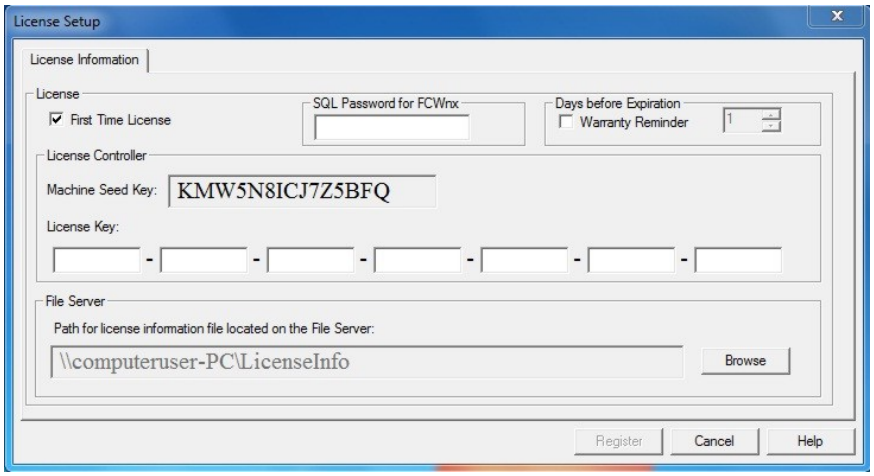
Telephone: 855 536 3573, option 5
E-mail: access.licenses@fs.utc.com

Entering the license key

When you have a registered license key, it is time to enter the key in FCWnx License Setup, at the Facility Commander Wnx Application server computer.

1. If the license program is not already open, select Start, Programs, Facility Commander Wnx, and then FCWnx License. The License Setup page opens.
2. Click OK to close the dialog box and display the FCWnx License Setup window as shown in Figure 7.
3. Continue with the instructions as presented in one of the following scenarios:
   - “First time license” below
   - “Running in demo mode” on page 35
   - “Second and any additional client licenses” on page 35
   - “If you do not license during the Facility Commander Wnx installation sequence” on page 37

Figure 7: License



First time license

This scenario assumes that this is the first client, and this client is licensing during the installation sequence.

To license the first client:

1. The First Time License check box is checked for you. Do not change. If it is not checked, select it now.
2. SQL Password for FCWnx: Enter a 12 character password that the application will use to access the FCWnx database. By default, it is set to the first 12 characters of the Machine Seed Key.

3. Select the Warranty Reminder in the Days before Expiration group box, and enter or select the number of days before expiration of your warranty that you want a reminder to begin displaying in your application. This field accepts a number between 0 and 120.

License Controller:

4. The Machine Seed Key is displayed for information only and is a read-only field. The Machine Seed Key is unique and different every time the License Setup application is started. The key is generated using the MAC and NIC address.
5. In the License Key sections, enter the 35-character license key string obtained through the UTC Fire & Security Web site. You can type the entry into the control dialog boxes or select, copy, and paste it.

File server:

6. The Path for license information file located on the File server: is a read-only dialog box and displays for information only.
7. The Browse button is enabled and allows selection of File server license information path to give the user an opportunity to log in to the remote computer, if the currently logged in user does not have permissions for the folder. When you navigate to and find the server computer, you must select the LicenseInfo folder to display the server name/folder name combination in this dialog box.
8. Click Register. If the SQL Server “sa” user password is the not default SecurityMaster08 (case sensitive), a SQL Server Login window opens.
9. Enter the password for the SQL Server “sa” user, and then click OK. Professional servers: The initial password is SecurityMaster08 (case sensitive), and is set up for you during the installation of SQL Server Express.
10. A message displays informing you that the license setup was successful and that the services will be stopped.
11. Click OK. The license program exits. The system registers the license key for this client and the software is licensed for use.

Notes

The computer in your system that accesses and completes the registration for the first time is the license controller computer. The license key is stored on the file server computer; therefore, the first-licensed computer and the file server computer must be online when services are started, and the newly licensed client is brought online for the first time.

If the motherboard or the NIC card on the File Server computer is replaced, you need to obtain a new license key

12. If you do not enter a license key, then Facility Commander Wnx will run in Demo Mode with only limited functionality. Refer to “Running in demo mode” below.

    Note: A summary of your license displays in the About... window of Facility Commander Wnx. Refer to “About Facility Commander Wnx license summary” on page 38, for additional details.

13. Following the licensing sequence, you *must* return to your installation sequence. Unless otherwise instructed, you are ready to set services. Refer to “Setting services to automatic startup” on page 25.

Running in demo mode

When the License Setup window opens during the installation sequence, the option to Cancel can be selected. Installation of this application completes and operation of your system continues in Demo Mode until you properly license your system. In Demo Mode, the system periodically shuts down and you are required to restart this application to continue operations. This sequence continues indefinitely if you have not properly licensed your system.

Operation during Demo Mode is limited to the following:

- 2 client computers
- 1 Imaging session
- 4 readers
- 4 cameras
- 1 API connection
- Client Redundancy
- Guard Tours
- Graphics console
- Controller support
- VMC

Second and any additional client licenses

Note: If the client is part of a domain, the user logged on must be a domain user assigned to the SPAdmin group of this application on the server, and not logged on locally as Administrator. If you are logged on locally as Administrator, you will not be able to license successfully because the LicenseInfo folder will not be found.

You *must* license all additional clients to operate Facility Commander Wnx.

To license the second and any additional clients:

1. If the license program is not already open, select Start, Programs, Facility Commander Wnx, and then FCWnx License. The License Setup page opens.
2. Click OK on the License Setup dialog box, if you have not already done so.
3. The First Time License check box is clear. Ignore and do not select.
4. SQL Password for FCWnx: This field is disabled and was completed when First Time License was completed.
5. Select the Warranty Reminder in the Days before Expiration group box, and enter or select the number of days before expiration of your warranty that you want a reminder to begin displaying in your application. This field accepts a number between 0 and 120.

License Controller:

6. The Machine Seed Key is displayed for information only and is a read-only field. The Machine Seed Key is unique and different every time the License Setup application is started. The key is generated using the MAC and NIC address.
7. Ignore the License Key section. (This section is disabled and was completed when First Time License was completed.)

File server:

Note: If the file server Firewall is ON, File and Printer Sharing must be selected (enabled) on the Exceptions tab.

8. The Path for license information file located on the File Server: may have a default path listed. Verify the path or click Browse to navigate to the application folder for this application, then License Info file of the server computer. Select and then click the file name. It now displays, in the Path for license information file located on the File Server field.
9. Click Register. The license program exits. The system registers the license key for this client and the software for this application is licensed for use. A message displays informing you that the license setup was successful and services for this application will be stopped.
10. A summary of your license displays in the About... window of Facility Commander Wnx. Refer to “About Facility Commander Wnx license summary” on page 38, for additional details.
11. Following the licensing sequence, return to your installation sequence.

Note: License controllers and clients must relicense if the network card has been changed or the computer replaced. If the license controller computer is relicensed, ALL clients must be relicensed.

If you do not license during the Facility Commander Wnx installation sequence

If you do not license during the installation sequence, installation completes and operation of your system continues in Demo Mode until you properly license your system. Refer to “Running in demo mode” on page 35, for details.

This scenario assumes that this is the first client, and this client is licensing some time after the Facility Commander Wnx installation sequence.

To license after installation of Facility Commander Wnx:

1. Click Start, Programs, Facility Commander Wnx, FCWnx License.

   The License Setup page opens.

2. Select the check box First Time License.
3. SQL Password for FCWnx: Enter a 12 character password that the application will use to access the FCWnx database. By default, it is set to the first 12 characters of the Machine Seed Key.
4. Select the Warranty Reminder in the Days before Expiration group box, and enter or select the number of days before expiration of your warranty that you want a reminder to begin displaying in your application. This field accepts a number between 0 and 120.

License controller:

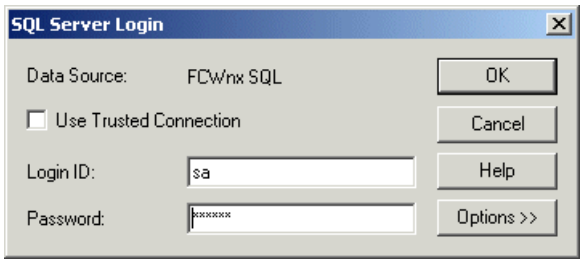
5. Accept and do not change the License Controller, Machine Seed Key, as displayed.
6. In the License Key sections, enter the 35-character license key string obtained through the UTC Fire & Security Web site. You can type the entry into the control dialog boxes or copy, cut, and then click any License Key control dialog box to paste the entire key.

File Server:

7. The Path for license information file located on the File Server: is a read-only dialog box and displays for information only.
8. The Browse button is enabled and allows selection of file server license information path to give the user an opportunity to log in to the remote computer if the currently logged in user does not have permissions for the folder.
9. Click Register.
10. The SQL Server Login dialog box may display, as shown in Figure 8 on page 38. Clear the Use Trusted Connection check box if checked, and then enter the Login ID “sa” and enter sa’s Password. If you purchased your system

from UTC Fire & Security, a temporary password of SecurityMaster08 was assigned. We recommend that you enter a password of your choice. Click OK.

Figure 8: SQL Server Login dialog box with data



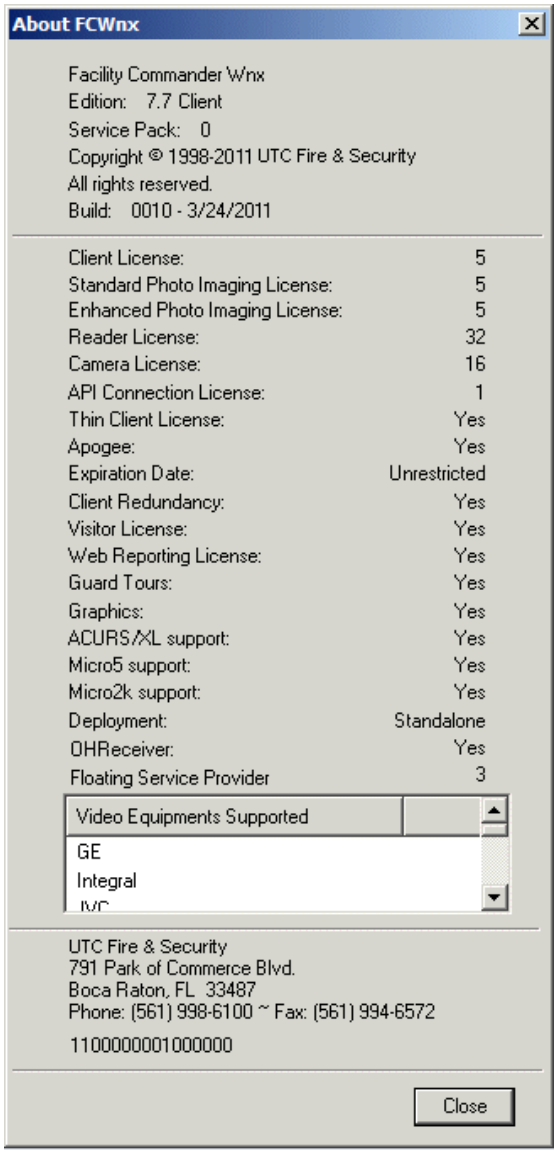
11. The license program exits. The system registers the license key for this client and the software is licensed for use. A message displays informing you that the license setup was successful and services will be stopped.
12. Following the licensing sequence, a summary of your license displays in the About... window of each client computer. Refer to “About Facility Commander Wnx license summary” below, for additional details.
13. You are ready to log on. Refer to Chapter 6 “Logging on and configuring Facility Commander Wnx” on page 63 for login instructions.

    Note: The computer in your Facility Commander Wnx system that accesses and completes the registration for the first time is the license controller computer. The license key is stored on the license controller computer; therefore, the license controller computer must be online, with Facility Commander Wnx services running in order to license additional client computers.
14. We recommend that you store your license agreement number in a safe place, so that if the license key is ever destroyed or corrupted, you can reinstall without having to contact UTC Fire & Security.

About Facility Commander Wnx license summary

Following a successful login, the edition of Facility Commander Wnx installed on your computer, as well as the Service Pack (if any), and parameters of your system display in the Facility Commander Wnx application, Help menu, About FCWnx window, similar to the following:

Figure 9: Help Menu - About window



SecurityCnfg Utility

The SecurityCnfg utility assists you in configuring firewall and DCOM settings on your computer. We recommend that you configure your FCWnx system with the Windows firewall ON. In order for your system to perform successfully, the following firewall and DCOM ports must be configured for server and client communication across your network.

Table 6: Supported authentications

	Anonymous	Local User Account	Domain Account
Domain	Yes	N/A	Yes
Workgroup	Yes	N/A	N/A

FCWnx default port assignments

FCWnx uses the following default port assignments when installed. FCWnx also communicates through DCOM requests via the operating system. The operating system dynamically handles the port assignments for DCOM and the default range used for communication are 1024-65535.

You can configure DCOM to use TCP rather than RPC at the operating system level, effectively optimizing the number of ports required. Contact Technical Support for configuration assistance.

Table 7: Default port assignments

Service	Port assigned
Media server:	8085 (HTTP - inbound from video client) 8086 (HTTP - inbound communication from host) 8087 (HTTP - outbound to host) 8088 (TCP - inbound stream requests from video client) 8089 (HTTP - outbound to video client)
Video devices:	
SymSafe/SymDec	1024 (TCP – command and control) Random (UDP – video streams)
DVMRe and StoreSafe	1024 (TCP)
VisioWave	4001 (TCP – command and control) 4444 (TCP – event control) 11001 (TCP – storage control) 5001 – 5256 (UDP – video streams) 8001 – 8256 (TCP – PTZ control)
DVSRxU and TruVision TVR 10	8000 - (TCP – command and control)
Integral	18772 (TCP – (command and control)
Intellex	5000 - 5002 (TCP – (command and control)
Nice	2024 (TCP – (command and control)
Panasonic	80 (HTTP – (command and control)
Pelco	9002 (TCP – (command and control)

For machines running Windows XP or Windows 2003, you must be logged in with local administrator rights to run the SecurityCnfg Utility. If you are not, log off and log back on as a user with these permissions.

For machines running Windows Vista, Windows 7, or Windows 2008, you must be logged in as the local administrator to run the SecurityCnfg Utility. If you are not, log off and log back on as the local administrator.

This application is launched one of three ways:

- Auto launches immediately following the licensing sequence.
- Select Configure Ports on the main File menu of FCWnx.
- Click Start, then select Programs, Facility Commander Wnx, and then SecurityCnfg.exe.

Once the program starts:

1. The Communications Ports for Clients window opens. This displays the low and high range for the ports used for TCP and UDP filtering.
2. Accept the given port values or change to suit your installation. If you need to change the ports, contact your IT department to make sure there are no port conflicts.
3. Click Next to continue. The settings are automatically saved to your computer. The DCOM User and Password window opens.
4. The Default check box is checked by default, which means this application uses secure authentication. That is, DCOM authentication is verified using the secure user account created during FCWnx installation. DCOM communication is configured for you and ports are opened during installation.
   - If you use secure authentication, skip to step 10.
   - If you do not wish to use secure authentication, clear the Default check box and complete the remaining fields on the window.

   If you cleared the Default check box, these fields are enabled.
5. In the Username field, enter a domain or local user name for this user.
6. In the Password field, enter a domain or local password for the user listed in the Username field.
7. In the Password (Confirm) field, enter the domain or local password a second time identical to allow verification of the password you are entering.
8. In the Domain field, enter the name of the FCWnx domain.

9. Items to note:
    - The username and password are used to authenticate remote DCOM objects.
    - To keep interruptions to the FCWnx application to a minimum, your IT Department may choose to set passwords as never expiring.
    - If any computer in your FCWnx system uses DCOM authentication, then all other client computers must use DCOM authentication.
10. Click Next to continue. The settings are automatically saved to your computer and DCOM is configured for FCWnx.
11. The Firewall Configuration window opens. The following port numbers display by default:
    - Controller Communications Port: 6699
    - Client Workstation/server Communications Port (RPC): 135

    The following port numbers are read from the `dvmrtable` of your FCWnx system.

    8088: Server Workstation Video Streaming Port. Used by the video server to send streaming video.

    8085: Start Video Communications Port Range (3). Used by video clients to communicate with video servers.

    8089: Start Digital Video Viewer Port Range (20). Additional ports used by video clients to communicate with video servers.

    These numbers signify a range of ports. Your application log identifies the specific ports that are opened. Additionally, your firewall application identifies which ports are on or off.
12. Accept the default port settings or enter another setting. If you change any setting, you are opening firewall ports and changing how video communicates:
    - If any port (range) setting is changed, the previously opened firewall port is closed the next time that `SecurityCnfg` is run. For example, the first time `SecurityCnfg` is run, you accept the default settings. You run `SecurityCnfg` again and change the port numbers, the old port numbers will be closed and the new ones will be opened.
    - Ports are usually changed because they are in use by other applications. Closing the ports in the firewall affects these applications.
    - It is required that each computer in your FCWnx system be changed to the identical setting.

- After making any changes to ports, be sure to restart services.

13. Click Finish to save and close this application. The settings are automatically saved to your computer.

What’s next?

Unless otherwise stated in your installation sequence, continue the installation for your system by selecting one of the following sequences:

- Facility Commander Wnx server Computers: “Setting services to automatic startup” on page 25.

  — or —

- Facility Commander Wnx Client Computers: “Configuring security settings” on page 55.

Chapter 5
Installing Facility Commander Wnx Software on additional clients

Summary

This chapter includes instructions for installation and configuration of Facility Commander Wnx on additional client computers. These computers can be communication clients for hosting controllers and digital video recorders, and available as Imaging stations. Follow instructions in the order presented.

Content

Reaching the First Time License computer over the network 46
- Pinging the First Time License computer 46
- Checking computer accessibility over the network 47

Installing Facility Commander Wnx on additional client computers 48
- Before you begin 48
- Starting the installation 48
- Facility Commander Wnx software installation begins 49
- TYPICAL installation 50
- CUSTOM installation 52

Licensing the client computer 55
Configuring security settings 55
Setting services to automatic startup 55
Logging on to client computer 57
Viewing Imaging status 58
- Imaging login setup 58

Client folder structure 60
- Client folders 61

What’s next? 61

Reaching the First Time License computer over the network

Verify that you can reach the First Time License computer by its computer name before you install Facility Commander Wnx on additional clients.

Typical Installation: The server computer is the First Time License computer and you can add clients at the server computer.

Custom Installation: The file components required to license may be stored on two separate computers:

- The File server stores the LicenseInfo file.
- The First Time License computer stores the Facility Commander Wnx Component Services files.

Note: You must be able to reach the computers for both sources.

Pinging the First Time License computer

In order to add an additional client computer in the database, you must verify that the computer can be reached by name.

Figure 10: Successful ping to server computer

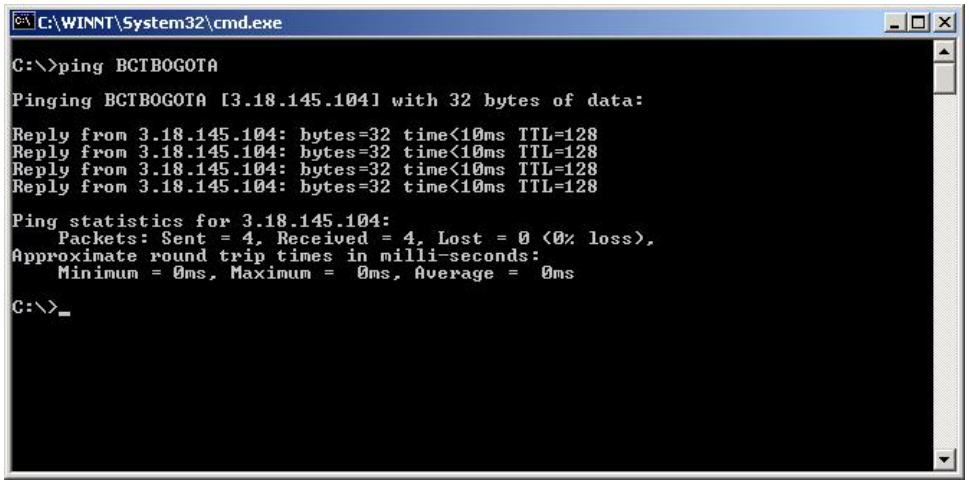
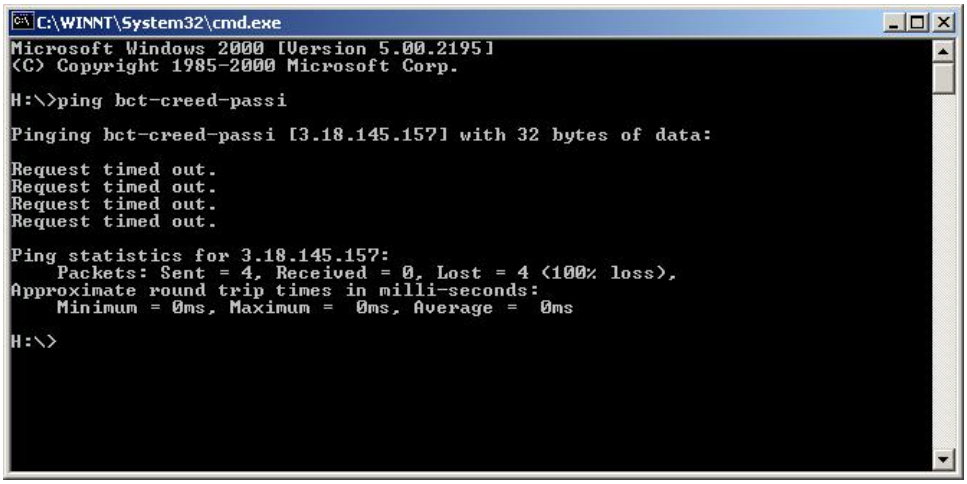


Figure 11: Unsuccessful ping to server computer


C:\WINNT\System32\cmd.exe
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.
H:\>ping bct-creed-passi
Pinging bct-creed-passi [3.18.145.157] with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 3.18.145.157:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
H:\>

To communicate with the First Time License computer by computer name:

1. Click Start, and then click Run.
2. In the Run dialog box, type cmd, and then click OK. A command prompt window displays.
3. Type ping <servername> where <servername> is the name of the First Time License computer. Press Enter.

   A successful ping reveals the computer address was reached. Your window should look similar to Figure 10 on page 46. Proceed to install Facility Commander Wnx on the client computer. Refer to “Starting the installation” on page 48.

   If the computer could not be reached, your window will be similar to Figure 11 above. Verify your network settings as configured during the operating system setup (“Installing the operating system” on page 9) or contact your network administrator for assistance.

Note: You cannot proceed until the networking issues are resolved.

Checking computer accessibility over the network

Another method for checking access to the computer is by using the following command:

To check computer accessibility over the network:

1. Click Start, and then click Run.
2. In the Run dialog box, type /<computer name> where <computer name> is the name of the First Time License computer. Click OK.

If the computer is found, a window opens listing the shared folders on that computer.

If the computer is not found, you receive a message that the network path was not found.

Installing Facility Commander Wnx on additional client computers

Before you begin

- Your Facility Commander Wnx system *will not* install unless minimum requirements have been met. Before you begin, refer to “Recommended minimum requirements” on page 1 and “Preinstallation checklist” on page 8.
- If you are installing on a non-English operating system, .NET Framework must be installed in the appropriate language to the operating system you are installing. You cannot install Facility Commander Wnx until this is accomplished.

Starting the installation

Note: If you purchased this system from UTC Fire & Security, Facility Commander Wnx is installed for you. Skip to Chapter 6 “Logging on and configuring Facility Commander Wnx” on page 63.

To install the Facility Commander Wnx application:

1. You *must* be logged on as administrator user to the local computer. If not, log off and log back on as a user with administrator permissions. (If you are logging onto a domain, log off and log on as an administrator to the domain.) This user must also have local administrative privileges.
2. Insert the Facility Commander Wnx installation disc into the CD/DVD drive. If the disc does not launch, you must manually start the software. Using Windows Explorer, navigate to the FCWnx Installation disc and double-click Setup.exe.
3. The Facility Commander Wnx introduction page opens. Click Install.

   A series of windows may display as the listed components automatically install if not already there. These components may cause the system to

restart when a new version is installed. If your computer restarts, log on as Administrator and installation continues.

- .NET Framework
- Windows Installer

Note: On rare occasions when installing Facility Commander from a DVD drive, the installation will stall for approximately 10 to 20 minutes from the time you click Install to the time when the Welcome to Facility Commander Wnx 7.7 Installation Wizard page opens. If this occurs, it is most likely caused by your anti virus software. If you have anti virus software running, you must configure it so that the DVD drive is not scanned. Refer to the documentation that came with your anti virus software for details.

4. Please wait as the Facility Commander Wnx installation processes updates on your system. When the latest versions of each component are updated and identified, Facility Commander Wnx installation begins, and the Welcome window displays. Continue with “Facility Commander Wnx software installation begins” below.

Facility Commander Wnx software installation begins

Note: A Cancel button displays on every FCWnx installation window. If you click Cancel at any time during the installation, the FCWnx installation process stops, but all Windows components that have been installed must be manually removed.

To install Facility Commander Wnx software on additional client computers:

1. The Facility Commander Wnx Welcome window displays. Click Next.
2. During installation, provide the appropriate answers to prompts as they display.
3. When the License Agreement window displays, select I accept the license agreement.
4. Select Typical or Custom.

Table 8: Selecting an installation type

Typical	Custom
The installation requires little user interaction and you do not need to make any special choices. Follow instructions in “TYPICAL installation” below.	If you need to accomplish any one of the following tasks, you must select Custom: • Change the password for the Windows logon USERID “secure.” **Note:** If you change the default Facility Commander Wnx user password, all computers must use the identical Facility Commander Wnx user replacement password. Continue by proceeding to “CUSTOM installation” on page 52.

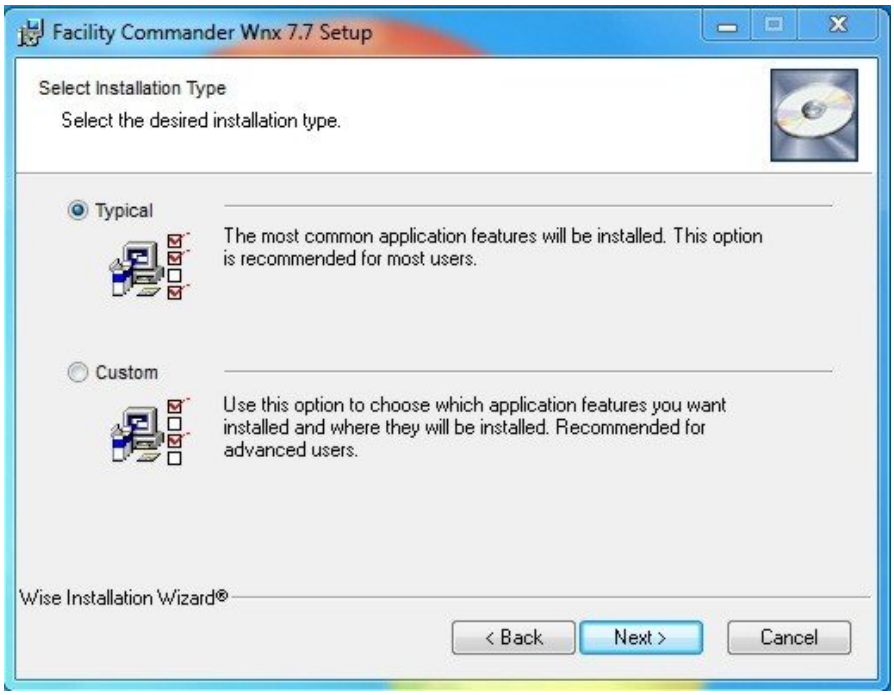
TYPICAL installation

If you choose a Typical installation, follow the instructions below:

To begin a Typical installation:

1. Select the type of installation as Typical.

Figure 12: Select Typical Installation Type


Facility Commander Wnx 7.7 Setup
Select Installation Type
Select the desired installation type.
Typical
The most common application features will be installed. This option is recommended for most users.
Custom
Use this option to choose which application features you want installed and where they will be installed. Recommended for advanced users.
Wise Installation Wizard®
< Back
Next >
Cancel

2. Click Next. The Install FCWnx Client/Server window displays as in Figure 13 on page 51.

Figure 13: Select Typical Client Type of Installation

Facility Commander Wnx 7.7 Setup
Install FCWnx Client/Server
Select the Type of Installation
Server
Server install will install the FCWnx Server on this computer.
Client
Client install will install the FCWnx Client on this computer.
FCWNX SERVER NAME: Enter the computer name of the FCWnx Server for this client or browse for the FCWnx Server on the Windows network.
COMPUTERUSER-PC
Note: Network browse operations may take serveral seconds to minutes.
Wise Installation Wizard®
< Back
Next >
Cancel

3. At the Install FCWnx Client/Server window, select Client. The FCWnx Server Name field is now available. Enter the name of the Facility Commander Wnx database server and file server for this client workstation or Browse by clicking the computer icon, for the server computer name on the Windows network. (This is the server computer you configured in a previous chapter.)
4. Click Next. The Ready to Install the Application window displays.
5. The default program folder is indicated. You may want to install to another location. Click Browse to navigate to the program folder of your choice for placement of Facility Commander Wnx files.
6. Click Next to continue.
7. Facility Commander Wnx copies system files, updates the system configuration, and displays the Facility Commander Wnx icon on your desktop. This may take a few minutes.
8. When the Facility Commander Wnx has been successfully installed window displays, click Finish.
9. A License Setup, Welcome dialog box displays. Click OK.
10. The Facility Commander Wnx Setup window displays. You are required to license this client installation in order for Facility Commander Wnx to function.
11. Continue with “Licensing the client computer” on page 55.

CUSTOM installation

Caution: Custom Installation is recommended for experienced software installers only.

You must select Custom in order to accomplish the following:

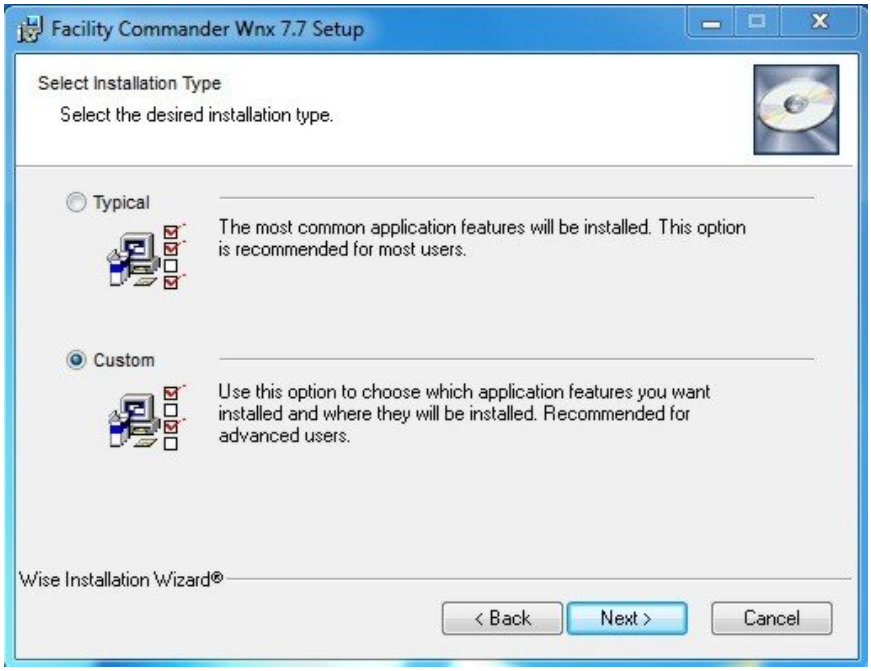
- Change the password for the Windows logon USERID “secure.”

Note: If you change the default Facility Commander Wnx user password, all computers must use the identical Facility Commander Wnx replacement user password.

To begin a Custom installation:

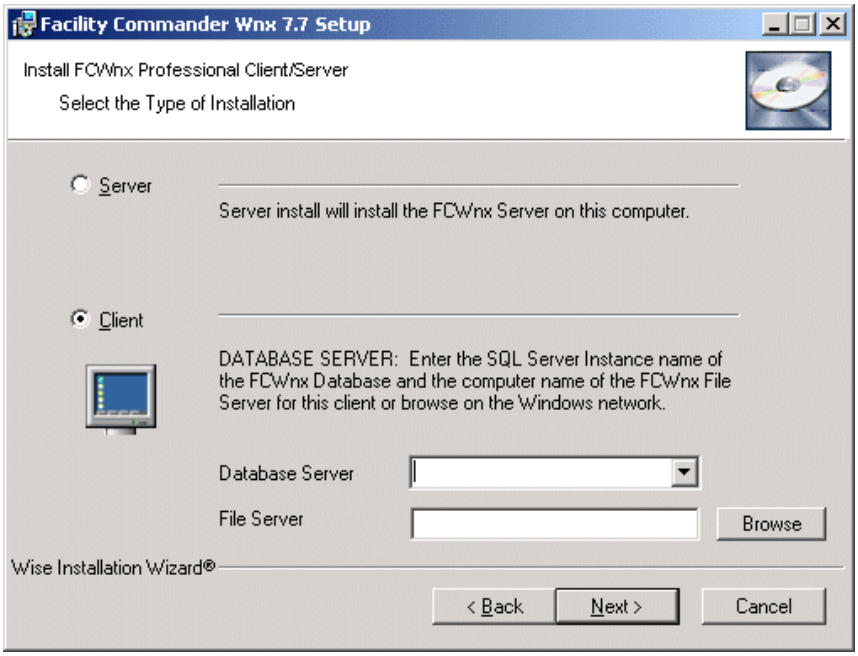
1. Select the type of installation as Custom, as displayed in Figure 14 below.

Figure 14: Select Custom Installation Type


Facility Commander Wnx 7.7 Setup
Select Installation Type
Select the desired installation type.
Typical
The most common application features will be installed. This option is recommended for most users.
Custom
Use this option to choose which application features you want installed and where they will be installed. Recommended for advanced users.
Wise Installation Wizard®
< Back
Next >
Cancel

2. The Install FCWnx Client/Server window displays as shown in Figure 15.

Figure 15: Custom Install FCWnx Client/Server


Facility Commander Wnx 7.7 Setup
Install FCWnx Professional Client/Server
Select the Type of Installation
Server
Server install will install the FCWnx Server on this computer.
Client
DATABASE SERVER: Enter the SQL Server Instance name of the FCWnx Database and the computer name of the FCWnx File Server for this client or browse on the Windows network.
Database Server
File Server
Browse
Wise Installation Wizard®
< Back
Next >
Cancel

3. Select Client. The Database Server field is now available. Enter the name of the FCWnx database server and SPSQL instance (such as DATABASESERVER\SPSQL) or select from the drop-down list of available server computers for this client.
4. Enter the File Server for this client or Browse for the File Server name on the Windows network. (These are the server computers you configured in the previous chapters.)
5. Click Next. The Change the “Secure” Password window displays as in Figure 16 on page 54.

Figure 16: Change the Secure Password window

Facility Commander Wnx 7.7 Setup
Change the "Secure" password
Change the password for the Windows Logon USERID 'Secure'
The FCWnx installation creates a new Windows USERID called 'Secure'. By default, the password is SecurityMaster08. If your Windows network has security policies that enforce rules for password creation, you may want to change the 'Secure' user password. If you are unsure, ask your System Administrator
Use Default Password
Change Password
New Password
Repeat New Password
Wise Installation Wizard®
< Back
Next >
Cancel

6. The Facility Commander Wnx installation creates a new Windows User ID called Secure. By default, the password is SecurityMaster08 (case sensitive). If your Windows network has security policies that enforce rules for password creation, you may need to change the Secure user password. If you are unsure, ask your system administrator. Select one of the following:
   - Use Default Password
   - Change Password

   Enter your new password, and then enter the password a second time.

   Note: This password must be the same for all computers in the Facility Commander Wnx system.
7. Click Next. The Ready to Install the Application window displays.
8. The default Destination Folder is indicated. You may want to install to another location. Click Browse to navigate to another program folder for placement of Facility Commander Wnx files.
9. Click Next to continue. Facility Commander Wnx copies system files, updates the system configuration, and displays the Facility Commander Wnx icon on your desktop. This may take a few minutes.
10. When the Facility Commander Wnx has been successfully installed window displays, click Finish.
11. Continue with “Licensing the client computer” on page 55.

Licensing the client computer

Typically, you are configuring computers that are running additional Facility Commander Wnx client applications. The reminder to license is placed at this point to maintain the proper sequence in completing the installation. Once the client computer is licensed, it will be added to the database. At this time, proceed to Chapter 4 “License and Set Security Settings for your FCWnx System” on page 31.

Note: When the licensing sequence is complete, return to this step and continue the installation.

Configuring security settings

The Security Configuration utility launches immediately following the License Setup and assists you in configuring firewall and DCOM settings on your computer. Check with your IT department for company-specific network settings.

Refer to “SecurityCnfg Utility” on page 39 for more details on using this utility.

After successfully configuring the security settings:

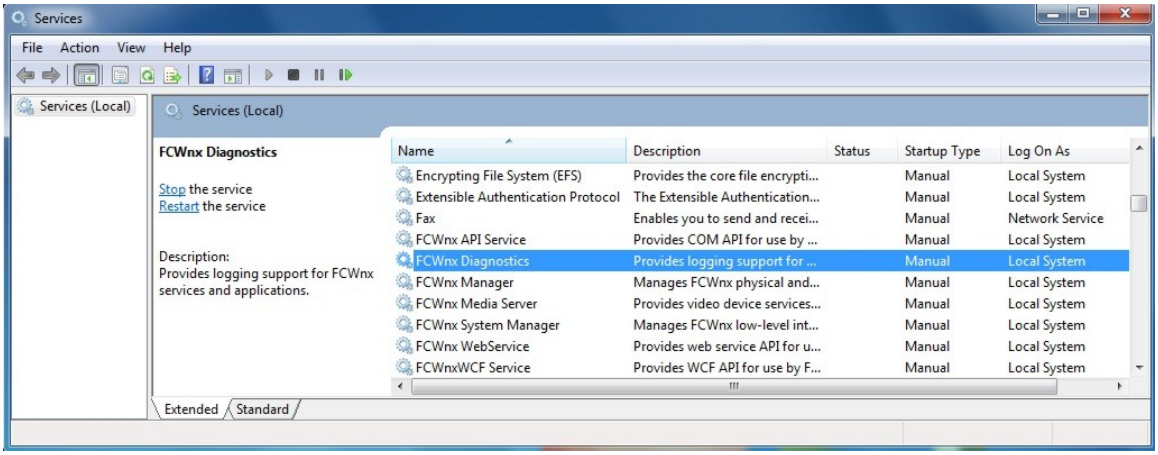
- You may receive a Facility Commander Wnx Installation Complete dialog box. If so, click Yes to restart your computer.
- Log on as administrator and continue with “Setting services to automatic startup” on page 25.

Setting services to automatic startup

Note: At this point in the installation, the FCWnx services are stopped.

Now, you need to change the startup method of the FCWnx services to automatic. This means every time the computer starts, the FCWnx services start. Refer to “Facility Commander Wnx services overview” on page 64, for additional information about FCWnx services.

Figure 17: FCWnx component services



To set the startup method of FCWnx services:

1. Click Start, and then click Control Panel.

   Category view: Click Performance Maintenance, Administrative Tools, and then click Services.

   Classic view: Click Administrative Tools, and then click Services.
2. The Services window displays. Expand the list of services and scroll down.
3. Select FCWnx Diagnostics.
4. The status will be either Started or blank. If it is blank, then the service is not running.
5. Right-click, and then select Properties. In the Startup type field, select Automatic.
6. Click Apply, and then OK to close the window.
7. Repeat steps 3 through 6 for the following services:
   - FCWnx Manager
   - FCWnx Media Server
   - FCWnx System Manager
   - FCWnx WebService
   - FCWnx WCF Service

   Note: FCWnx API Service is used when an external system sends or receives transactions using an Application Program Interface (API) to FCWnx.
8. When all services are configured, close all windows and applications.
9. Restart the FCWnx client computer.

Logging on to client computer

Note: Restart the client computer at this time if you have not already done so.

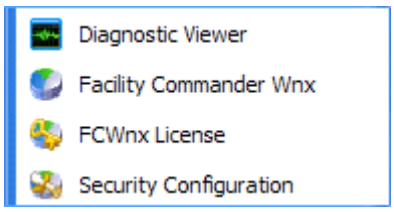
During installation of the Facility Commander Wnx software, a default local Windows user is created. You will need to log on to the client computer as a user that is part of the SPAdmin local group. By default, a user secure with the password SecurityMaster08 (case sensitive) was created for you and added to the SPAdmin group.

If the services are started, you are now ready to open the Facility Commander Wnx application. Refer to “Setting services to automatic startup” on page 55 to verify if Facility Commander Wnx Services are started.

To access Facility Commander Wnx after installation:

1. To access Facility Commander Wnx from your desktop, double-click the Facility Commander Wnx icon, pictured below.

2. As an alternative, access Facility Commander Wnx from the Start menu. Click Start, Programs, and then Facility Commander Wnx. The Facility Commander Wnx menu displays as shown below.



The options are as follows:

- Diagnostic Viewer

  Refer to the Diagnostic Viewer online help for details of this option.

- Facility Commander Wnx

  Refer to Chapter 6 “Logging on and configuring Facility Commander Wnx” on page 63.

- FCWnx License

  Refer to “Second and any additional client licenses” on page 35.

- Security Configuration. Refer to “SecurityCnfg Utility” on page 39.

Viewing Imaging status

To verify whether you currently have Imaging capabilities:

1. Log on to Facility Commander.
2. From the Application Group pane, select Monitors & Controls, then Client Monitor. The number of Imaging licenses purchased with your system displays in a lower section of the form.

   Note: Keep in mind that Imaging installs on all computers in your Facility Commander Wnx system. Your Facility Commander Wnx license controls the number of Imaging stations active at the same time.
3. Select a client computer from the list displayed, then right-click to display the shortcut menu.
4. Select Client from the shortcut menu. The Client Form opens, displaying the record for the selected client.
5. Select Imaging Status as Enabled, and then click Save. The photo ID badging system is now enabled for use at this station.

Imaging login setup

If the operator that is running Facility Commander Wnx and Imaging system is not a member of the local Administrator's group, you *must* add the Power Users group to this account. The operator login should belong to at least the following local groups:

- Users
- Power Users
- SPAdmin

These groups grant the Windows user access to the Imaging system registry keys and file system.

To add an operator to user groups:

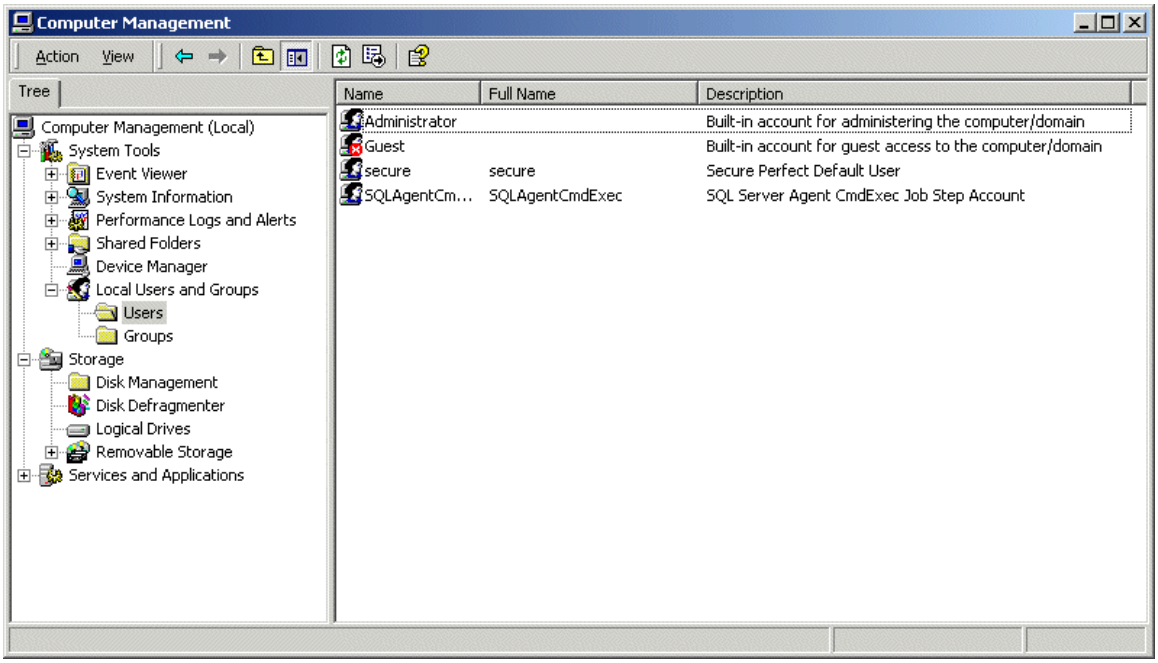
1. Click Start, and then click Control Panel.

   Category view: Click Performance Maintenance, Administrative Tools, and then double-click Computer Management.

   Classic view: Click Administrative Tools, and then double-click Computer Management.
2. The Services window displays. Expand the list of services and scroll down.

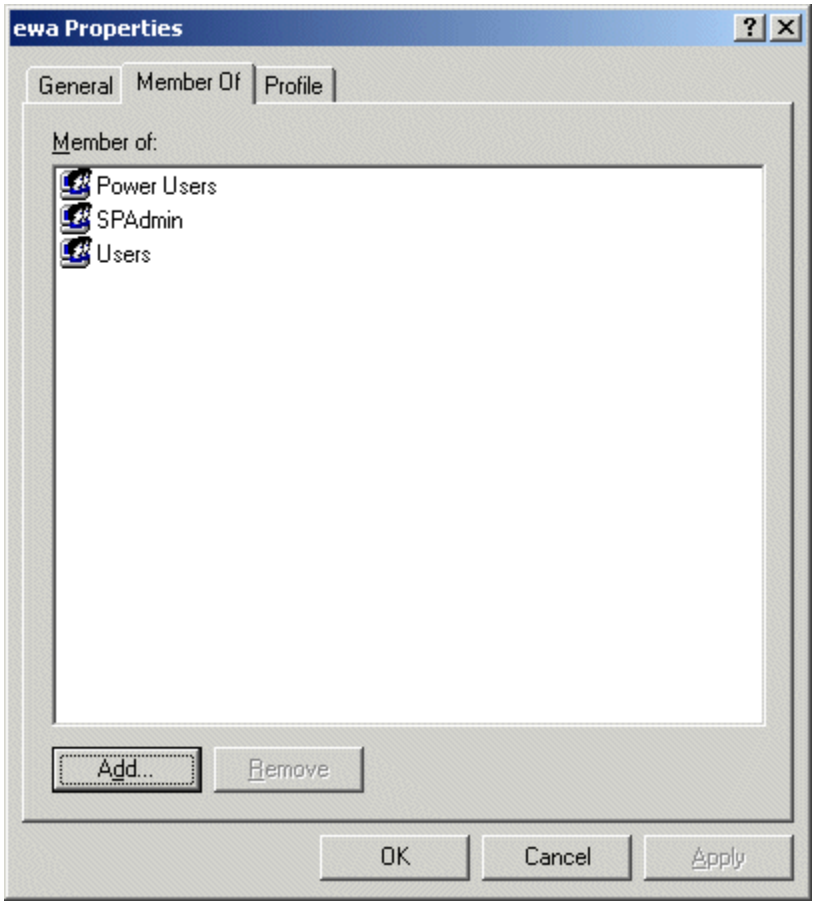
3. Click Local Users and Groups, and then click Users. Your window should look similar to Figure 18 below.
4. Double-click the user login Name to which you are adding access to login groups. The user Properties window displays.

Figure 18: Imaging login setup



5. Select the Member Of tab, and then click Add.
6. When the Select Groups window displays, select those groups from the list of Names to which you are adding the user login, click Add, then click OK. The window should look similar to Figure 19 on page 60. The operator running the Facility Commander Wnx and Imaging systems is a member of the groups listed.

Figure 19: Login Groups - Properties window



Client folder structure

During installation of Facility Commander Wnx software, folders are created, such as: Client, English, Logs, and Rpt.

Some of the folders are shared. This allows other computers to gain access to the information stored in these folders, as long as they logged on as an authorized user.

Client folders

To review a description of the folders in your FCWnx directory, refer to the following:

Table 9: Client folders

Folder	Description
Config	A folder that contains website configurations for the FCWnx Web Service. The FCWnx Web Service is used by VMC to communicate with FCWnx.
English	The files required to display the Facility Commander Wnx client software in English. As more languages are installed, more language-specific folders will display.
gmcNls	A folder that contains the language support files for the GMC application. After the base install of FCWnx, these folders are empty as no language kits have been installed yet. As the language kits are installed, the language support files are placed in this folder.
GraphicsCache	A folder that contains the working data files for the GMC application.
jre	A folder that contains the Java Runtime Environment used by GMC and VMC.
Logs	A shared folder that contains the Facility Commander Wnx diagnostic log files.
Rpt	A folder that contains files used by the report engine to create Facility Commander Wnx reports.
UserManuals	A folder that contains the FCWnx and GMC User Manuals in pdf format.
VideoSubsystem	A folder that contains the dlls that enable communication between FCWnx and VMC.
Vmc	A folder that contains the Java code for the VMC application.
vmcNls	A folder that contains the language support files for the VMC application. After the base install of FCWnx, these folders are empty as no language kits have been installed yet. As the language kits are installed, the language support files are placed in this folder.

What's next?

You have completed the client computer setup. Proceed with one or more of the following:

- If you have not licensed your system, do so now. Refer to Chapter 4 "License and Set Security Settings for your FCWnx System" on page 31.
- Proceed to configure your Facility Commander Wnx system. Refer to Chapter 6 "Logging on and configuring Facility Commander Wnx" on page 63.

Chapter 6
Logging on and configuring Facility Commander Wnx

Summary

Once you have installed the Facility Commander Wnx software, you will need to log on to the server computer and set a few parameters before beginning to create any controller records or credentials. Review “Getting Started” in the Facility Commander Wnx Online Help for the recommended order of initial setup and configuration.

Content

Facility Commander Wnx services overview 64
Starting Facility Commander Wnx 66
Logging on 67
Accessing help 68
Defining additional user accounts 68
    Adding yourself as an operator in Facility Commander Wnx 68
Initial setup of Facility Commander Wnx records 69
Setting up e-mail accounts 69
Changing the Facility Commander Wnx server computer name 69
    Server computer name in system properties 70
    Server computer name change using SPServer.exe utility 70
    Recreating a Microsoft SQL Server registration 72

Facility Commander Wnx services overview

Windows computers use special programs called services. A service is a process that can automatically start when the system starts and remain running as a background process independently of anyone being logged in.

All computers running Facility Commander Wnx client software use six services:

- *FCWnx Diagnostics* controls the diagnostic information log.
- *FCWnx Manager* controls the communication to and from the controllers and video devices.
- *FCWnx Media Server* coordinates communications with video devices and distributing video to clients.
- *FCWnx System Manager* coordinates the communications of data between computers and handles Facility Commander Wnx licensing.
- *FCWnx WCF Service* is used to integrate external devices into FCWnx.
- *FCWnx WebService* coordinates communications for Video Management Control (VMC).

These services run regardless of whether anyone is logged in to Windows or Facility Commander Wnx (unless Auto Shutdown is enabled on the Client Form). In other words, the computer must be turned on but no one needs to be logged in.

These services *must* be running in order for connection to the client computers and for controllers to communicate with their server computer.

If you are going to be using an API interface, your computer will use a seventh service:

- *FCWnx API Service* can be started manually at the time you install an API interface.

To access the Services form:

1. Log on with Administrator rights.
2. Click Start, and then click Control Panel.

   Category view: Click Performance Maintenance, Administrative Tools, and then click Services.

   Classic view: Click Administrative Tools, and then click Services.
3. The Services window opens. Expand the list of services and scroll down. See Figure 20 on page 65.

The status will be either Started or blank. If it is blank, then the service is not running.

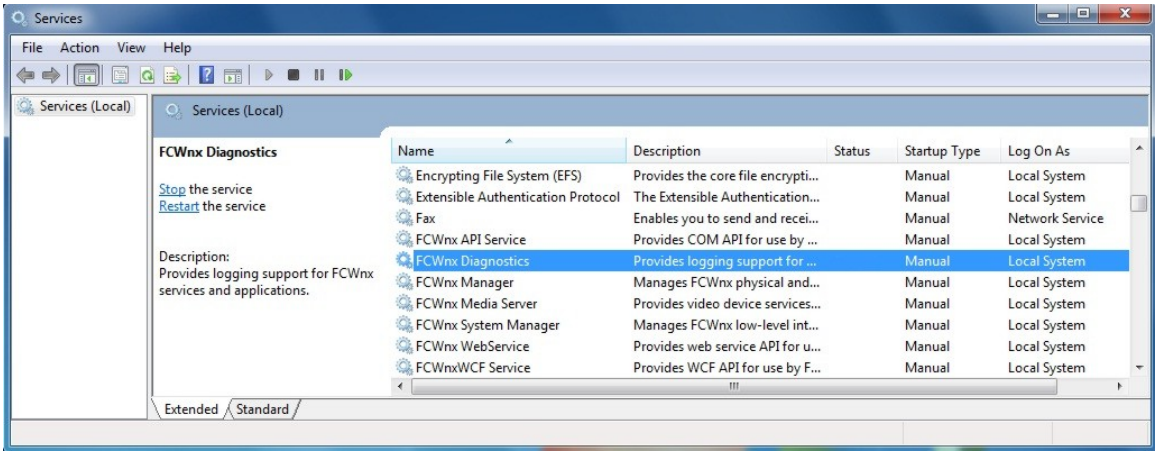
Caution: Changing the state of services without a good working knowledge of the services' purpose can cause the computer to act erratically!

During your installation sequence, services were set to automatic. Refer to "Setting services to automatic startup" on page 25. Once set to automatic, FCWnx initializes these services with an automatic startup, which means that it starts as soon as the computer is started. We recommend that you do not change this setting. However, should you need to start them manually, keep the following in mind.

These services need to start in the following order (and stopped in the reverse order):

- FCWnx Diagnostics (If you stop FCWnx Diagnostics, all services stop.)
- FCWnx System Manager
- FCWnx WCF Service
- FCWnx Manager
- FCWnx Media Server
- FCWnx Webservice (If you start FCWnx Webservice, all services start.)

Figure 20: FCWnx component services



To start the FCWnx services:

1. Access the Services form. See "To access the Services form" on page 64.
2. Right-click FCWnx WebService, and then click Start.
3. All other services are started.

To stop the Facility Commander Wnx services:

1. Shut down all client applications to ensure that any work in progress is saved.
2. Access the Services form. See “To access the Services form” on page 64.
3. Right-click FCWnx Diagnostics, and then click Stop. A message displays informing you that the other services also stop.
4. Click Yes. All other services shut down and then, Diagnostics shuts down.

To verify or troubleshoot the Facility Commander Wnx services problems, look at your log files.

To set the FCWnx API Service:

FCWnx API Service is used when an external system is sending or receiving transactions by way of Application Program Interface to Facility Commander Wnx. Do not start this service or change the settings unless you are using the API option in FCWnx and have been previously licensed.

Starting Facility Commander Wnx

The Facility Commander Wnx menu contains the following options:

- Diagnostic Viewer: Refer to the document, Diagnostics and Troubleshooting, on the documentation disc that shipped with your Facility Commander Wnx system, in PDF format or Online Help, for details of this option.
- Facility Commander Wnx: Select and then click this option to open the Facility Commander Wnx application.
- FCWnx License: Refer to the licensing section of this manual for instructions to license your new system.

The following features are available on machines with Typical Server installed or Custom installation with the database server component installed:

- Create FCWnx Database: Select this option if you are creating a database outside of the normal installation sequence. The database creation process is outlined in the appropriate installation section of this manual for your operating system.
- Database Maintenance Utility: This menu option opens the database backup, restore, and password utilities.
- Install SQL Server 2008 Express Edition: This menu option installs SQL Server 2008 Express.

- Security Configuration: Select this option if you need to set the firewall or security settings outside of the normal installation sequence.

Note: The Client menu is detailed in “Logging on to client computer” on page 57.

To open the Facility Commander Wnx client application:

1. To access Facility Commander Wnx from your desktop, double-click the Facility Commander Wnx icon, pictured below.

   — or —

   Access Facility Commander Wnx from the Start menu. Click Start, All Programs, then Facility Commander Wnx. Select Facility Commander Wnx.

2. The Facility Commander Wnx program starts. The Facility Commander Wnx menu bar displays a File and Help menu. Log on to access Facility Commander Wnx.

Logging on

Note: The default login ID is `secure` and the password is `SecurityMaster08` (case sensitive) The language is English.

To log on to the Facility Commander Wnx application:

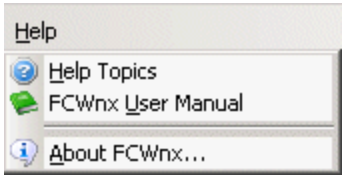
1. Select the File menu, and then click Login.
2. Enter your login ID and password. If this is a client machine, the server computer must be installed, configured, and licensed. The SQL Server database services must be running on the server computer.
3. Click OK.

Note: If logging onto Facility Commander Wnx using a client, you *must* have a valid user name, and password, along with a valid Facility Commander Wnx login ID and password on the server computer. Those login IDs must be part of the SPAdmin local group on the Facility Commander Wnx server computer.

Accessing help

To access the Online Help, select Online Help from the Facility Commander Wnx Help menu. You do not have to be logged in to access Help.

Figure 21: Accessing online help



Defining additional user accounts

Adding additional Windows users is optional but recommended since this clearly identifies each user in Windows.

Note: If you do choose to add additional users, you must assign them to the group “SPAdmin” after Facility Commander Wnx is installed.

Adding yourself as an operator in Facility Commander Wnx

To add yourself as an operator in Facility Commander Wnx:

1. Log on using the default login ID, secure.
2. Add yourself as an operator in Facility Commander Wnx. This will allow Facility Commander Wnx to track you and the steps you take in setting up the system. To add yourself as an operator, select Administration from the Application Group pane, and then Operator.

   For detailed instructions to configure an operator record, refer to the Facility Commander Wnx User Manual or the Online Help.
3. Log off and then log on as the new operator.

Initial setup of Facility Commander Wnx records

Refer to the online help as a guideline in setting up your system records. The steps follow a specific sequence that is suitable for a smooth system configuration.

Setting up e-mail accounts

Configuring e-mail accounts can be accomplished by selecting Administration from the Application Group pane and then Preference. On the Settings tab, select Enable in the Event Notifier E-mail Support section. This capability allows you to notify an e-mail account when incoming Facility Commander Wnx alarms are received. Refer to the Facility Commander Wnx Online Help for details of this option.

Changing the Facility Commander Wnx server computer name

This section provides instructions for changing the computer name for the following configurations:

- Typical installation, change the database server computer name.
- Custom installation that has the database server, file server, and FCWnx Client Application installed on the same computer.

For any other scenario, you *must* consult UTC Fire & Security Technical Support for assistance.

You need to change the computer name in two areas:

- In System Properties
- Using the SPServer.exe utility

Details are included in the following sections.

Server computer name in system properties

Note: These instructions assume that you are at the server computer of a Typical installation. All database and Server components and the Facility Commander Wnx application are on the same computer. If your database and Server components and application are on separate and different computers, call UTC Fire & Security Technical Support for assistance.

This step changes the server computer name in the Windows operating system:

Note: You must be at the database server computer.

To change the computer name in the Windows operating system:

1. Stop Facility Commander Wnx services.
2. Windows XP Professional:
   - Right-click the My Computer icon on your desktop, and then click Properties.
   - Select the Computer Name tab from the System Properties window.
2. Windows Vista and Windows 7:
   - Click Start, right-click Computer, and then click Properties.
   - In the Computer name, domain, and workgroup settings, click Change settings. Select the Computer Name tab from the System Properties window.
3. Enter the new name of the server computer. It should consist of a maximum of 15 alphanumeric characters with no spaces.
4. Click Change to open the Computer Name Changes window. You can change the name and the membership of your computer. Changes may affect access to network resources. Click OK or Cancel to return to the System Properties window.
5. Click Apply, and then click OK. You will be asked to restart your computer. Select Yes.

Server computer name change using SPServer.exe utility

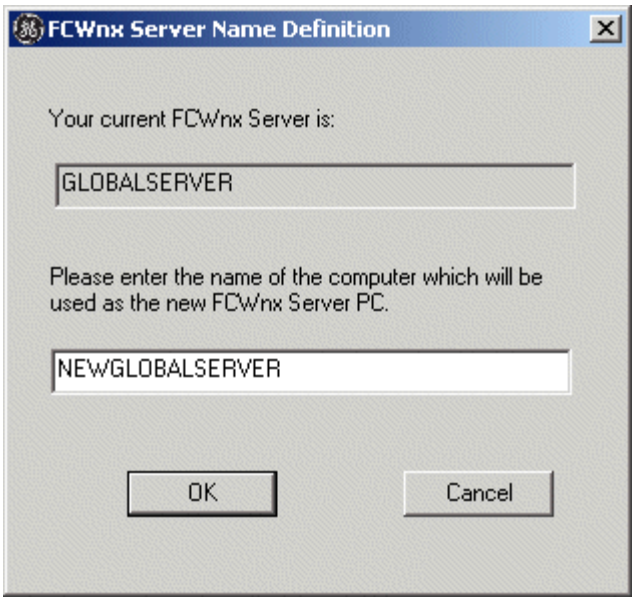
Note: These instructions must be followed on every computer in your Facility Commander Wnx system, including the server computer.

This step changes the computer name for the Facility Commander Wnx application. FCWnx has a utility to assist you in changing your server computer name.

To change the server computer name in the Facility Commander Wnx application:

1. Stop Facility Commander Wnx services. If you need assistance, review “Facility Commander Wnx services overview” on page 64.
2. Navigate to the FCWnx folder of your server computer. The default is Program Files\GE\FCWnx.
3. Double-click the SPServer.exe file. The FCWnx Server Name Definition window opens as shown in Figure 22 below.

Figure 22: FCWnx Server Name Definition window


FCWnx Server Name Definition
Your current FCWnx Server is:
GLOBALSERVER
Please enter the name of the computer which will be used as the new FCWnx Server PC.
NEWGLOBALSERVER
OK
Cancel

4. Your existing server computer name displays as a read-only field. Ignore this field.
5. Enter the new server computer name in the appropriate field.
6. Click OK. The Server Name Definition dialog box displays an update message.
7. Click OK to close this window.
8. Relicense your Facility Commander Wnx system at this time.

   If the computer has not changed, just the computer name, you can use your existing license key provided at the time you purchased your system.

   If the computer has changed, your system needs to be relicensed with a new license key. Be prepared to obtain a new license from UTC Fire & Security. Refer to “Generating a registration key” on page 32.

9. Click OK.
10. Change the server computer name on all clients in your Facility Commander Wnx system, repeating the steps beginning with “Server computer name in system properties” on page 70.

Note: Remember to change the client name in the Facility Commander Wnx application, Client table.

Recreating a Microsoft SQL Server registration

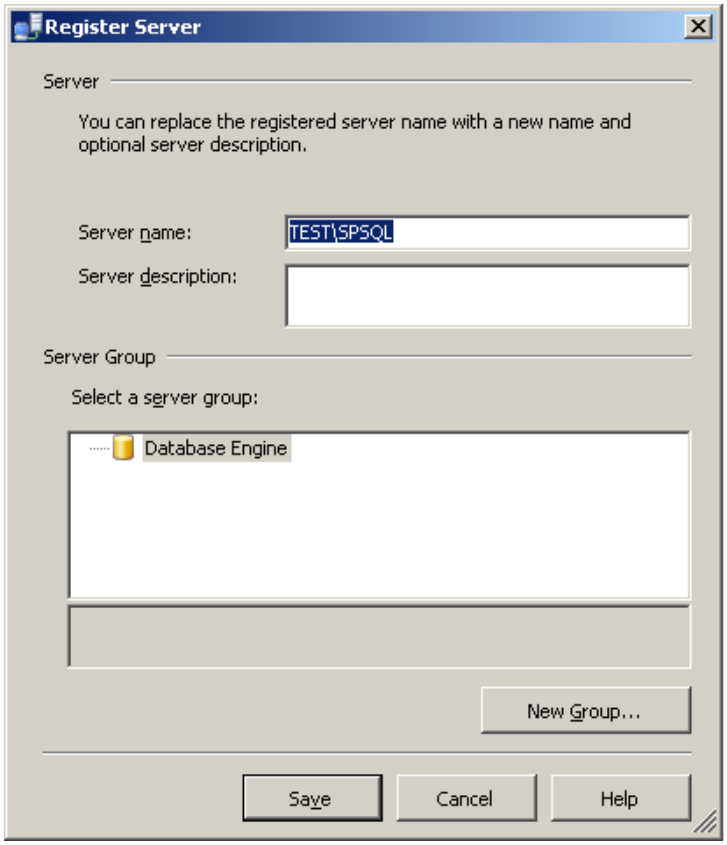
This step changes the computer name for the Microsoft SQL Server program.

Microsoft SQL Server 2008 Express

To change the computer name in Microsoft SQL Server 2008 Express:

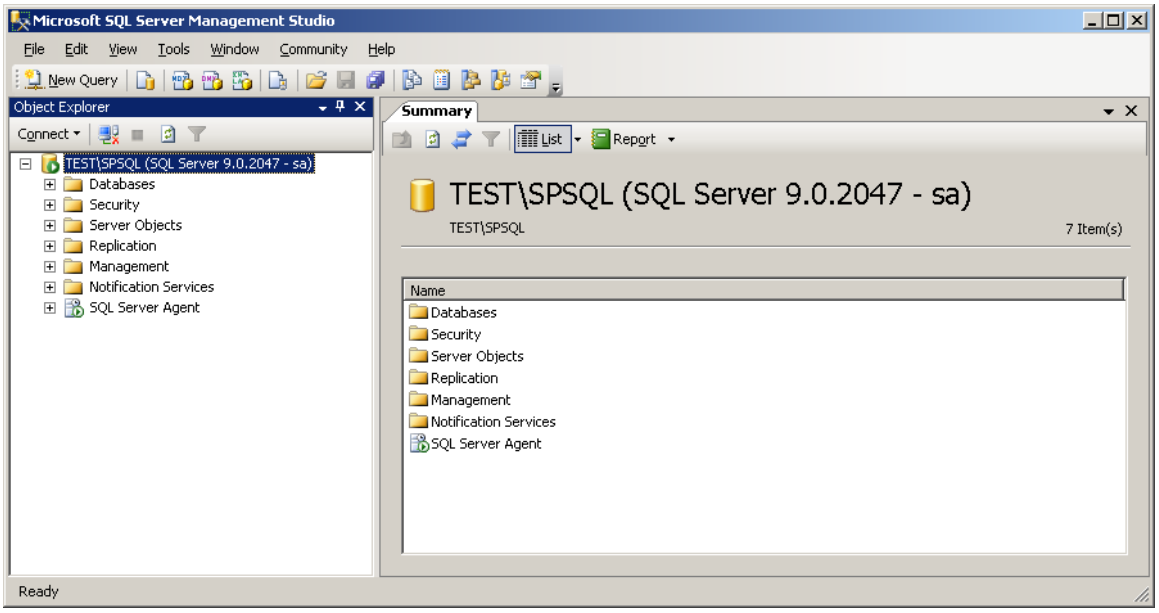
1. Click Start, Programs, Microsoft SQL Server 2008, and then SQL Server Management Studio.
2. At the Connect to Server dialog, connect to your SPSQL instance.
3. Select, then right-click your computer name and SPSQL instance.
4. Select Register.
5. In the Server name field, enter the new name of the server computer, and then click Save.

Figure 23: Register Server



6. Click the Server drop-down list to display the list of Server names in your Facility Commander Wnx network system. Your newly created Server name should display on this drop-down list. Select your new Server name.
7. Select Connect. The password fields are now available for entry.
8. Enter the “sa” login name and “sa” password.
9. Do *not* change any other selections.
10. Click OK. The new Server name displays in your Microsoft SQL Server Management Studio navigation tree similar to Figure 24 on page 74.

Figure 24: SQL Server Enterprise Manager navigation tree



11. Close the Microsoft SQL Server Management Studio.

Chapter 7
Logging off and shutting down

Summary

This chapter details the process of exiting, logging off, or shutting down Facility Commander Wnx and your computer.

Content

Exiting Facility Commander Wnx 75
- Quitting Facility Commander Wnx application 76
- Shutting down 76
- Logging off from Windows 76

Automatic client shutdown 77

Exiting Facility Commander Wnx

When exiting Facility Commander Wnx, you have two options:

- Exit
- Log Off

Exit logs off the operator and shuts down the Facility Commander Wnx client application.

Log off allows an operator to log off and another operator to log on without exiting the program.

Quitting Facility Commander Wnx application

You have the option of logging off without shutting down the computer. In this case, the Facility Commander Wnx services are still running. However, you will not receive any alarm notifications. To receive these notifications, you need to have the Facility Commander Wnx client application running. If you select the option to receive notifications on the Client Form, you need to be logged in to the Facility Commander Wnx client application. The alarm notification displays based on the operator's facility assignment, which is evaluated upon login to the Facility Commander Wnx application.

Shutting down

To shutdown Facility Commander Wnx and your computer:

1. Exit the Facility Commander Wnx client application by selecting Exit from the File menu. Enter your password in the Password field of the Exit window, and then click OK.
2. From the Desktop, click Start, then Shut Down.
3. From the Shut Down Windows form, select the Shut down option, and then click OK.

Logging off from Windows

To log off:

1. Exit Facility Commander Wnx by selecting Exit from the File menu. Enter your password in the Password field of the Exit window, and then click OK.
2. From the Desktop, click Start, then Shut Down.
3. From the Shut Down Windows form, select Log off xxxx (where xxxx is the user name that was used to log on.) Click OK.

   This logs off the current user and allows another user to log on. Keep in mind that the Facility Commander Wnx services are still running but you will not receive any alarm notifications.

Note: Also see "Facility Commander Wnx services overview" on page 64, for additional information relating to Facility Commander Wnx services.

Automatic client shutdown

Services will automatically shut down if this option is selected on the Client Form (unless you disable Auto Shutdown on the Parameter Form) when a client closes the Facility Commander Wnx application and meets all of the following criteria:

- Does not host any controllers or video devices.
- Does not have any API connections.
- Does not host a thin client.
- Is not a backup client for or have any backup clients of its own.
- Is not a CCTV client.
- Does not host a Guard Tour.

The shutting down of a particular client computer designates that license capacity unused. Now, that license is available for another computer that can now be designated a Facility Commander Wnx client.

Chapter 8
Back up and restore your FCWnx Professional system

Summary

This chapter provides information for system administrators to archive, back up, and restore a Facility Commander Wnx Professional system.

Content

Overview 80
FCWnx Professional system recovery checklist 80
Backing up 81
    Backing up the entire Facility Commander Wnx folder 82
    Backing up Facility Commander Wnx databases 82
    Backing Up Facility Commander Wnx designs and videos 83
Restoring 83
    Restoring databases on the Facility Commander Wnx Server 84
    Restoring designs and videos 85

Overview

The difference between archiving and backing up is defined as follows:

- Archiving creates a copy of the latest history transactions. You will still need to back up the archive file in order to maintain a copy. Refer to the Facility Commander Wnx Online Help or the Facility Commander Wnx User Manual on the documentation disc shipped with your Facility Commander Wnx system, in PDF format, for details of this function.
- Backing up creates a copy of selected data, such as the three databases, and stores it either on the computer or other storage media such as an external hard drive, USB flash drive, CD, DVD, or a network folder.

FCWnx Professional system recovery checklist

If your system or hard drive crashes, your database may be determined to be beyond repair. Follow the sequence of steps to recover your system.

To recover your Facility Commander Wnx Professional system:

1. Install Windows 7, Windows Vista, or Windows XP Professional operating system. Install applicable operating system service packs. (See “Installing the operating system” on page 9.)
2. Install Facility Commander Wnx software from the installation disc. (See Chapter 3 “Install Facility Commander Wnx Professional Edition server” on page 17.)
3. Restore the three Facility Commander Wnx databases from your backup media. (SecurePerfect, SecurePerfectHistory, and SecurePerfectArchive). (Refer to the appropriate section of this chapter.)
4. Restore the GraphicsCache, Video, and Designs folders from your backup media to the appropriate folders. (See the appropriate section of this chapter.)

   Note: If restoring to a different server computer with a different server name, you will need to run a script to reset the database security. (See “Changing the Facility Commander Wnx server computer name” on page 69. Follow the steps in the order they are listed.)
5. Run the licensing program, Facility Commander Wnx License, and enter your 35-character license key string. (See Chapter 4 “License and Set Security Settings for your FCWnx System” on page 31.)
6. Restart the computer.

Backing up

A backup is a copy of selected data. You should keep two backups:

- The Facility Commander Wnx data
- The entire Facility Commander Wnx installation

Facility Commander Wnx data

Facility Commander Wnx data includes the elements in Table 10 below.

Table 10: Facility Commander Wnx data include the following

Element	Description
Main Database	Contains configuration data, such as credentials and controllers.
History Database	Contains current history including credential transactions and operator history.
Archive Database	Contains copies of Facility Commander Wnx history data based on archive period.
Externals	A shared, empty folder created to store reports created by third party report generators.
Designs	Contains the credential design files. The Designs folder is located in the Facility Commander Wnx folder.
GraphicsCache	Will only need to be backed up if you are using Alarm Graphics. Contains the alarm graphics maps. The GraphicsCache folder is located in the Facility Commander Wnx folder.
Video	A shared folder that contains captured video files.

You should back up this data more often since it changes so frequently. While your internal policies may dictate your backup requirements, we recommend that you create a backup at least every week.

Entire Facility Commander Wnx installation

The entire FCWnx folder should be backed up when you first set up the system and have confirmed that it is working, and any time you upgrade. It is very important that you also back up the registry settings. In most backup programs, you will be prompted to back up these settings.

Always maintain a current backup. If you have any problems with your system, you are able to restore your backup. This includes your databases as well as your files.

Backing up the entire Facility Commander Wnx folder

If you purchased your system from UTC Fire & Security, your system contains a DVD-RW drive that can be used for backup purposes. It is recommended that you do a backup of the entire Facility Commander Wnx folder.

To backup the entire Facility Commander Wnx folder:

1. In Microsoft Windows Explorer, navigate to the Facility Commander Wnx program folder.
2. Copy the Facility Commander Wnx folder to your backup media.

Backing up Facility Commander Wnx databases

The Facility Commander Wnx databases contains configuration data, such as credentials and controllers. They should be backed up on a continual basis since the information may change frequently.

Note: Custom stored procedures or triggers added to the Facility Commander Wnx databases need to be removed. You can recreate custom procedures or triggers after restoring the database files.

To back up your Facility Commander Wnx databases:

1. Create a folder on your system where the backup files will be stored.
2. Click Start, Programs, Facility Commander Wnx, and then Database Maintenance Utility.

   If this utility is not found in the Start menu, then go to the GE, FCWnx, SecureScripts directory and double-click the file: DatabaseMaintenance.exe

   The Database Maintenance window opens.
3. Click Backup. The Database Maintenance - [Backup] destination window opens.
4. Select the databases that you want to backup by checking the check box.
   - Main
   - Archive
   - History
5. Click Browse to navigate to the drive and directory folder on your system where the backup files will be stored.

   The .BAK files in each field will be automatically named, to include the directory path, file name, date, and time.

6. If you choose not to back up any of the three databases, clear the check box. If the check box is checked but no destination is entered in the database field, backup of that database file will not occur.
7. Accept the default Login of “sa” and enter the Password for “sa.” The default password assigned for the “sa” user is SecurityMaster08 (case sensitive).
8. Click Backup. The backup process begins. When backup is complete, a dialog box displays a message verifying the successful backup of the chosen databases.
9. Click OK.
10. Exit the Database Maintenance window.

Backing Up Facility Commander Wnx designs and videos

Backing up creates a copy of selected data. You can use any backup program you want and any storage media such as an external hard drive, USB flash drive, CD, DVD, or a network folder. The size of the files in the folder you want to back up will be a determining factor of which media to use.

If you purchased your system from UTC Fire & Security, then your system contains a CD/DVD-RW drive that can be used for backup purposes.

To back up data:

1. In Microsoft Explorer, navigate to the Facility Commander Wnx program folder. Select the Designs and Video folders.
2. Copy the folders to your backup media.

Restoring

How you restore depends on how you backed up the system. What you should restore is detailed below.

- Restoring your Archive will happen more frequently than other restores in order to run reports.
- Restoring your Main database and History should ONLY be done if you are having problems with your system.

Restoring databases on the Facility Commander Wnx Server

These restore procedures are guidelines only.

To restore a database backup:

1. Verify that Facility Commander Wnx is installed on the destination computer.
2. Stop Facility Commander Wnx services.
3. Click Start, Programs, Facility Commander Wnx, then Database Maintenance Utility.

   If this utility is not found in the Start menu, then go to the GE, FCWnx, SecureScripts directory and double-click the file: DatabaseMaintenance.exe

   The Database Maintenance window opens.
4. Click Restore. The Database Maintenance - [Restore] destination window opens.
5. Select the databases that you want to restore by checking the check box.
   - Main
   - Archive
   - History
6. Click Browse to navigate to the drive and directory folder on your system where the backup files are stored.
7. If you choose not to restore any of the three databases, clear the check box. If the check box is checked but no destination is entered in the database field, restore of that database file will not occur.
8. Accept the default Login of “sa” and enter the Password for “sa.” The default password assigned for the “sa” user is SecurityMaster08 (case sensitive).

   Note: Although you cannot change the password here, we recommend assigning a unique SQL system administrator password to your database using the FCWnx Maintenance Utility.
9. Click Restore. The restoration process begins. When restoration is complete, a dialog box displays a message, verifying the restoration of the chosen databases.
10. Click OK.
11. Exit Restore. The database restoration is complete.
12. Relicense your Facility Commander Wnx system.
13. Start Facility Commander Wnx services.

Restoring designs and videos

To restore the Designs and Video folders to the Facility Commander Wnx server computer:

1. Copy the designs from the backup source into the Designs folder on the Facility Commander Wnx server computer.
2. Copy the videos from the backup source into the Video folder on the Facility Commander Wnx server computer.

Chapter 9
Uninstall Facility Commander Wnx or delete a database

Summary

This chapter outlines instructions for removal of software and deleting a database.

Content

Uninstalling Facility Commander Wnx software 87
Before you begin 87
Uninstalling Facility Commander Wnx 88
Uninstalling Facility Commander Wnx installed components 88
Verifying and cleaning up after an uninstall 89
Deleting the database 90
Facility Commander Wnx Professional Server 90
Removing Microsoft SQL Server 2008 Express 91

Uninstalling Facility Commander Wnx software

Before you begin

Before you uninstall Facility Commander Wnx, make sure that:

- All clients are logged off
- All Facility Commander Wnx applications, such as DiagView, are closed

- All Facility Commander Wnx services are stopped. Refer to “Facility Commander Wnx services overview” on page 64.

Uninstalling Facility Commander Wnx

To uninstall FCWnx:

1. Log on as someone with administrative privileges, such as administrator.

Note: You cannot be logged on as user “secure.”

2. Click Start, Control Panel, and then Add/Remove Programs.
3. From the list of currently installed programs that display, select Facility Commander Wnx 7.7.
4. Click Uninstall or Remove. The Add or Remove Programs window opens asking you to confirm the action. Click Yes.
5. When uninstall is complete, click Finish, then exit the Add/Remove Programs window and the Control Panel.

The database and log files are not removed during the uninstall of Facility Commander Wnx on the server computer.

If the uninstall does not proceed (hangs), do the following:

To complete the uninstall process:

1. Press Ctrl-Alt-Delete. The Windows Security Dialog opens.
2. Click Task Manager.
3. At the Task Manager window, Facility Commander Wnx 7.7 displays a status of Not Responding.
4. Select the line Facility Commander Wnx 7.7, and then click End Task.
5. At the next dialog box, click End Task again.

Uninstalling Facility Commander Wnx installed components

Note: Facility Commander Wnx 7.7 also installs the following components. If you want to completely remove all installed components, proceed with the following procedure.

- Facility Commander Wnx 7.7 Imaging Runtime
- Facility Commander Wnx 7.7 Crystal Reports Runtime

To uninstall Facility Commander Wnx 7.7 Imaging Runtime and Facility Commander Wnx 7.7 Crystal Reports Runtime:

1. Log on as someone with administrative privileges, such as administrator.
2. Click Start, Control Panel, and then Add/Remove Programs.
3. From the list of currently installed programs that display, select Facility Commander Wnx Imaging Runtime.
4. Click Remove or Uninstall. The Add or Remove Programs window opens asking you to confirm the action. Click Yes.
5. When uninstall is complete, click Finish.
6. Repeat steps 3 through 5 for Facility Commander Wnx Crystal Reports Runtime.
7. Exit the Add/Remove Programs window and the Control Panel.

Verifying and cleaning up after an uninstall

You may encounter problems while uninstalling from a server computer. Sometimes, this results in an incomplete uninstall which means miscellaneous files are left behind. If you did encounter problems, the sections that follow detail some steps to assist you in troubleshooting your uninstall. The first step is to verify that Facility Commander Wnx uninstalled successfully. Refer to “Verifying Facility Commander Wnx uninstalled successfully” below.

Verifying Facility Commander Wnx uninstalled successfully

Check the Facility Commander Wnx folder and verify that the Database and Logs folders are the only items left.

To verify a Facility Commander Wnx uninstall:

1. Go to Windows Explorer and navigate to your Facility Commander Wnx folder. The default setting is Program Files\GE\FCWnx.
2. You should see the Database and Logs folders only. If you see any other files, select them, and then click Delete.
3. Next, continue with “Deleting the database” on page 90.

Deleting the database

Caution: The following steps cannot be completed if you have already uninstalled Microsoft SQL Server 2008 Express software.

Facility Commander Wnx Professional Server

As mentioned earlier, the database is not removed when you uninstall Facility Commander Wnx from the server computer.

Caution: Make a backup of your database before performing these steps!

To delete the database:

1. Click Start, Programs, Microsoft SQL Server 2008, then SQL Server Management Studio.
2. At the Connect to Server window, verify that the Login and Password are correct then click Connect.
3. Locate and open the Databases folder.
4. Right-click SecurePerfectHistory to display the shortcut menu.
5. At the menu, select Delete.
6. The Delete Object window opens. Select the Close existing connection check box, and then click Ok to delete this database.
7. Right-click SecurePerfectArchive to display the shortcut menu.
8. Select Delete.
9. The Delete Object window opens. Select the Close existing connection check box, and then click Ok to delete this database.
10. Right-click SecurePerfect to display the shortcut menu.
11. Select Delete.
12. The Delete Object window opens. Select the Close existing connection check box, and then click Ok to delete this database.
13. From the Microsoft SQL Server Management Studio main menu, select File, then Exit.

Removing Microsoft SQL Server 2008 Express

Caution: Removing Microsoft SQL Server will delete all Facility Commander Wnx databases.

If you are required to remove Microsoft SQL Server software due to file corruption beyond recovery, you will need to perform the following:

To remove the Microsoft SQL Server:

1. Stop SQL Server services.
2. Stop any applications that are currently using SQL Server software.
3. Back up your database files. See Chapter 8 “Back up and restore your FCWnx Professional system” on page 79.

To uninstall Microsoft SQL Server 2008 Express software:

1. Click Start, Control Panel, and then Add/Remove Programs.
2. From the list of currently installed programs that display, select Microsoft SQL Server 2008.
3. Click Remove. The Remove SQL Server 2008, Select Instances window opens. Click Next.
4. The Select Features window opens. Click Select All, and then click Next.
5. The Removal Rules window opens. Click Next.
6. A confirmation window opens listing the items you selected to remove. Click Remove.
7. The Removal Progress window opens and a progress bar displays the removal progress. When complete, click Remove.
8. The SQL Server 2008 removal complete window opens. Click Close.
9. Click Start, Control Panel, and then Add or Remove Programs.
10. From the list of currently installed programs that display, select Microsoft SQL Server Compact 3.5 SP1 English.
11. Click Remove. A confirmation window opens. Click Yes.
12. From the list of currently installed programs that display, select Microsoft SQL Server 2008 Native Client.
13. Click Remove. A confirmation window opens. Click Yes.

14. Close the Add or Remove Programs window.
15. Restart the server computer.

Chapter 10
Troubleshooting, maintenance, support

Summary

This chapter provides information to help you troubleshoot problems and contact technical support in case you need assistance with your UTC Fire & Security equipment.

Content

Troubleshooting 93
Database creation errors 94
Installing and uninstalling 94
Contacting technical support 97

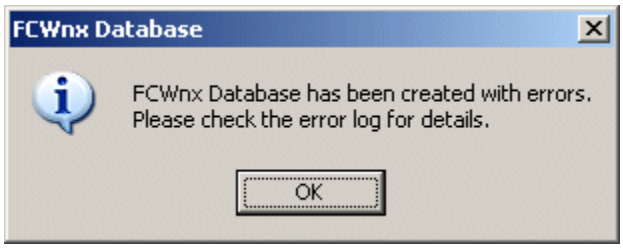
Troubleshooting

This section provides information to help you diagnose and solve various problems that may arise while configuring or using your UTC Fire & Security product and provides technical support contacts if you need assistance, see “Contacting technical support” on page 97.

Database creation errors

Symptom: A message displays similar to the one shown below.

Figure 25: Database Creation Error



Solution: Review the SPCreateDB.txt error log and correct any installation configuration problems.

If you were able to resolve the problem, recreate the database.

If you continue to have a problem, contact UTC Fire & Security Customer Support.

Installing and uninstalling

Uninstalling FCWnx

If the uninstall does not proceed (hangs), follow the instructions below.

To uninstall FCWnx:

1. Click Ctrl-Alt-Delete.
2. The Windows Security dialog box opens.
3. Click Task Manager.
4. At the Task Manager window, Install displays a status of Not Responding.
5. Select the line Uninstall, and then click End Task.
6. At the next dialog box, click End Task again.
7. Once the steps above are completed, continue with the next section, “Verifying and cleaning up after an uninstall” below.

Verifying and cleaning up after an uninstall

You may encounter problems while uninstalling from a server computer. Sometimes, this results in an incomplete uninstall which means miscellaneous files are left behind. If you did encounter problems, the sections that follow detail

some troubleshooting steps to assist you in troubleshooting your uninstall. The first step is to verify that Facility Commander Wnx uninstalled cleanly. Refer to “Verifying FCWnx uninstalled successfully” below.

Verifying FCWnx uninstalled successfully

Check the Facility Commander Wnx folder and verify that the Database and Logs folders are the only items left.

To verify a Facility Commander Wnx uninstall:

1. Go to Windows Explorer and navigate to your Facility Commander Wnx folder. The default setting is Program Files\GE\FCWnx.
2. You should see the Database and Logs folders only. If you see any other files, select them, and then click Delete.
3. Next, continue with “Deleting subkeys from the registry” below.

Deleting subkeys from the registry

Caution: Using the Registry Editor incorrectly can cause serious problems that may require you to reinstall your operating system. Neither UTC Fire & Security nor Microsoft guarantee that problems resulting from the incorrect use of Registry Editor can be solved. Use Registry Editor at your own risk!

To delete the FCWnx subkey from the registry:

1. Click Start, then Run.
2. In the Run window, enter: regedit
3. Click OK.
4. Locate the HKEY_LOCAL_MACHINE key.
5. Double-click the SOFTWARE icon to expand the folder tree.
6. If you find a GE key in this folder, double-click the GE key to expand the folder tree.
7. If you find an FCWnx key, right-click the key, and then click Delete.
   - If you have a problem deleting the FCWnx key, you may need to change the registry permission. Refer to “Changing registry permissions” on page 96.
   - If you do not have an FCWnx or a GE key, this is an indication that the uninstall was successful in updating the Registry. Continue with step 8.

   You are asked to confirm the deletion.
8. Click Yes.

9. From the main menu, select Registry, then Exit.
10. Restart your computer at this time.

Changing registry permissions

If you have an FCWnx key and need to change permission for the registry:

Caution: Using the Registry Editor incorrectly can cause serious problems that may require you to re-install your operating system. Neither UTC Fire & Security nor Microsoft guarantee that problems resulting from the incorrect use of Registry Editor can be solved. Use Registry Editor at your own risk!

To change registry permissions:

1. Click Start, then Run.
2. In the Run window, enter: regedt32
3. Click OK.
4. Locate the HKEY_LOCAL_MACHINE key.
5. Double-click the SOFTWARE icon to expand the folder tree.
6. Select GE and double-click the GE icon to expand the folder tree.
7. Select FCWnx.

Note: If FCWnx is not there, do not proceed. Check with your Information Systems Department.

Registry permission validation

To validate registry permissions:

1. On the Edit menu, click Permissions.
2. In the Group or user names window, locate and select SPAdmin.
3. Click Advanced.
4. Select the check box labeled Inherit from parent...
5. Click Apply, then click Ok.
6. In the Permissions portion of the Security window, select Allow for Full Control. Click Apply, then click OK.
7. On the File menu, click Exit.

Contacting technical support

For assistance installing, operating, maintaining, and troubleshooting this product, refer to this document and any other documentation provided. If you still have questions, you may contact presales and technical support.

Note: Be ready at the equipment before calling for technical support.

You can reach technical support by phone 8 a.m. to 7 p.m. EST, Monday through Friday.

North America

T 888 437 3287
F 561 998 6224

Asia

T 65 639 19314
F 65 639 19306

Australia

T 61 3 9239 1200
F 61 3 9239 1299

Canada

T 800 267 6317
F 613 737 5517

EMEA

T 48 58 326 22 40
F 48 58 326 22 41

Latin America

T 503 691 7294
F 561 994 6572

Email: rs-bctsupport@fs.utc.com

Web site: www.utcfireandsecurity.com

Appendix A
UL certification requirements

Summary

This appendix provides a list of installation requirements necessary for a UL Listed Facility Commander Wnx system.

Content

UL specifications and requirements 99

UL specifications and requirements

Facility Commander Wnx is a UL Listed system (*UL 1076 Proprietary Burglary Requirements/UL 294 Access Control Requirements*). You must adhere to the following requirements in a UL Listed installation:

1. The computer and monitor shall be completely duplicated. Provision for switchover within 6 minutes is required (30 seconds for manual transfer of cables and 5 minutes 30 seconds for the system startup sequence).
2. Compatibility has been verified with the following protected premise-control units:
   - ACU2X, ACU2XL8, ACU2XL16, ACURS02, ACURS04, ACUX16, ACUXLplus
   - M5, M3000, and Micro/2000 using a PXN or PXNplus CPU board
   - DirecDoor
3. The system shall be connected to a listed surge suppressor with a maximum marked rating of 330 volts.

4. The installation instructions shall specify signal line transient protection complying with the *Standard for Protectors for Data Communications and Fire Alarm Circuits, UL 479B*, with a maximum marked rating of 50 volts.
5. The equipment shall be installed in a temperature-controlled environment. Twenty-four hours of backup power shall be provided to the HVAC system. The HVAC system shall be capable of maintaining a temperature between 55° and 95° F.
6. The installation instructions shall specify that, in addition to the main power supply and secondary power supply that are required to be provided at the central supervisory station, the system shall be provided with an uninterruptible power supply (UPS) with sufficient capacity to operate the computer equipment for a minimum of 15 minutes. If more than 15 minutes is required for the secondary power supply to supply the UPS input power, the UPS shall be capable of providing input power for at least that amount of time. The UPS shall comply with the *Standard for Uninterruptible Power Supply Equipment, UL 1778*, or the *Standard for Fire Protective Signaling Devices, UL 1481*.
7. A UL Listed printer shall be provided.
8. Signal prioritization shall be set up as follows (from highest to lowest): Alarm, Trouble, Supplementary (such as access control).
9. Polling of a receiving unit must not exceed 200 seconds.
10. Exit and Entry delay must not exceed 60 seconds.
11. Communication between Host and Protected Premises Units must consist of an independent, dedicated, and direct Ethernet line. Communication over LAN and WAN has not been investigated by UL.
12. Elevator Control, DVR, CCTV, Camera functions, and Keypad Alarm Response have not been evaluated by UL.
13. Any communication failure shall be treated as a compromise of the Encrypted Line Security of the proprietary burglar alarm system when installed with NIST validated, Triple DES C module, Version 1.1.
14. The minimum system configuration for the Facility Commander Wnx monitoring equipment consists of a Listed Pentium computer with a minimum CPU speed of 2 GHz, 2 GB RAM, 10 GB HDD, and 10/100 NIC. A color monitor shall also be provided (1024 x 768 resolution, 16-bit color display).

Appendix B
Optional hardware and software

Summary

This appendix details procedures to follow when installing optional hardware and software to your FCWnx system.

Content

Installing FCWnx on a thin client terminal server 101
Following installation of FCWnx 102
Setting up a Digi serial-port expander 103
Following installation of the Digi board 104
Setting up dial-up modems 104
Setting up the Fargo DTC550 printer/encoder for smartcard encoding with FCWnx 105

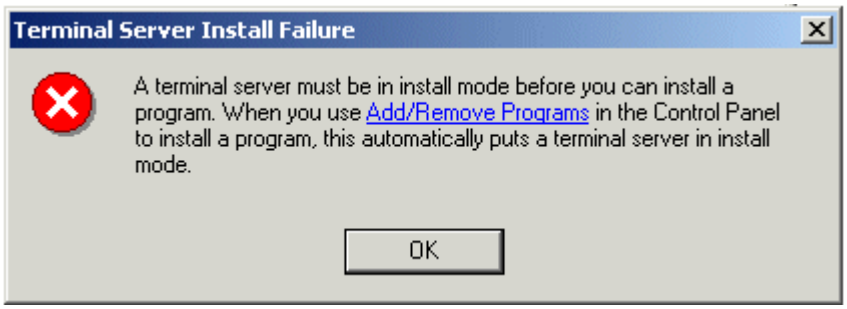
Installing FCWnx on a thin client terminal server

Note: Your FCWnx software license limits the number of thin client installations allowed. Refer to the licensing chapter of your installation manual.

Install thin client software on the appropriate computers by following the appropriate installation and configuration instructions for your brand of hardware. Windows documentation provides additional details of virtual workstation technology and thin client services installation and access. If you have additional questions, consult your IS Department for assistance.

To install FCWnx on a thin client terminal server computer:

1. Insert the FCWnx installation disc into your CD/DVD drive. A Terminal Server Install Failure message is displayed as shown below.


Terminal Server Install Failure
A terminal server must be in install mode before you can install a program. When you use Add/Remove Programs in the Control Panel to install a program, this automatically puts a terminal server in install mode.
OK

2. Click OK.
3. If not already displayed, browse to the FCWnx installation disc content. This is typically D:\
4. Double-click terminal.exe to begin the FCWnx software installation.
5. Continue with “Selecting Installation Type” of your *FCWnx Installation Guide* and proceed with complete FCWnx installation instructions.

Note: Return to this point when the entire installation process is complete.

Following installation of FCWnx on a computer with thin client services enabled, a manual restart is required to complete the process. Restart your computer at this time and then proceed to log on.

Following installation of FCWnx

To finalize the FCWnx installation:

1. Log on to the FCWnx application. Select the File menu, and then select Login. For additional details, review, Chapter 6 “Logging on and configuring Facility Commander Wnx” on page 63. There are additional system parameters you need to address.
2. Enter your login ID and password.

   Note: Default login ID is secure and the password is SecurityMaster08 (case sensitive). The language is English.

   If logging into FCWnx using a client, you *must* have a valid operating system (Windows XP Professional or Vista), user name, and password, along with a valid FCWnx login ID and password on the server computer. Those login IDs must be part of the SPAdmin local group on the FCWnx server computer.
3. Click OK.

4. On the Administration menu, click Client.
5. In the Thin Client Status combination group, select Enabled. thin client terminal server installation of FCWnx is now complete.
6. Thin client software must be installed on all computers that are going to connect to the thin client server and access FCWnx.
7. Your FCWnx software license limits the number of thin client installations allowed.

Setting up a Digi serial-port expander

Note: If you purchased this system from UTC Fire & Security, the Digi board is already set up for you.

The Digi serial-port expander is a UTC Fire & Security approved serial-port expander. The purpose of the Digi serial-port expander is to provide additional COM ports, which are required for wiring direct-connect micros and communicating with dial-up micros using modems.

Note: If you plan on using CCTV devices to interface with FCWnx, you need additional serial ports; therefore, you need a Digi serial-port expander. However, integrated digital video recorders and equipment use an Ethernet interface.

To install or change the configuration of the Digi serial-port expander:

1. Shut down the computer and turn the power off. Remove the power cord from the back of the computer. (Stand-by power causes the system to automatically start up on the insertion of a new card of any type into the PCI bus.)
2. Open the computer and install the Digi board into any free PCI slot of the motherboard. Secure the card to the computer chassis.
3. Close the computer case and connect the Digi box to the cable from the Digi board that you just installed.
4. Turn the power on and wait for the computer to restart. If the computer does not restart, manually restart the system at this time. During the startup sequence, Windows detects the Digi serial-port expander and prompts you for the Windows installation disc.

   Note: If this is a client computer, during the startup sequence, Windows detects the Digi serial-port expander and prompt you for the Windows installation disc.

5. Insert the Windows installation disc. A screen displays, prompting you for the type of module you have attached to the board.
6. Select 16em if you are using the 16-port expander box (16em is the default setting) or 8em if you are using the 8-port expander box.
7. Click Add then Next. You are asked what port number you want to install first, beginning with the first available COM port (usually, COM 4 if an internal modem is installed).

   Note: We recommend starting with COM 5, ending with COM 20 on a 16em board and COM 12 on an 8em board.
8. Click Finish. The Ports Configuration window opens.
9. Click Next, then Finish. The installation is complete. Shut down and restart the computer system.

Following installation of the Digi board

To finalize the Digi board installation:

1. Check if the COM ports are installed by clicking Start, Programs, Administrative Tools, then Computer Management.
2. In the Computer Management window, select Device Manager and expand the Ports (COM & LPT) available to your computer. Verify the list of COM ports and numbers that you installed.

Setting up dial-up modems

Note: If you purchased this system from UTC Fire & Security, the modem is already set up for you.

A dedicated support modem for use by UTC Fire & Security business and support is highly recommended. Micro modems are used to communicate with dial-up micros. For Micro/5 and PX-2000 modems, we recommend that you lock the baud rate at 9600.

Before a modem can be used with FCWnx, it must be set up in the operating system. Refer to your modem documentation and Windows documentation for more information.

If this modem is to be used to communicate with micros, *you must manually lock the speed of the modem at 9600 baud*.

To lock the speed of the modem at 9600 baud:

1. Click Start, and then click Control Panel.
2. From the Control Panel, select Phone and Modem Options.
3. On the Modems tab, select the modem you are using for your micros, and then click the Properties button.
4. In the Maximum port speed field, select 9600.

   Note: Not all modems use the exact commands listed in the previous step. If your modem does not use that command, use the definitions below to select the equivalent command.

   &Q0: Selects direct asynchronous operation and turns off error correction, data compression, and automatic speed buffering (ASB).

   S37: Selects the speed that your modem uses to attempt a connection with the remote modem. This is the data transmission speed across the telephone line from modem to modem. If the remote modem does not support the speed specified by S37, your modem attempts to connect at the next lower speed. This continues until a connection is made, the options are exhausted, or the remote modem times out.

   =9: 9600 bits/second

   If you have problems at 9600, you can try a lower baud rate:

   =8: 4800 bits/second
   =7: 2400 bits/second
5. Click OK. Click OK again, and then click Close.

Setting up the Fargo DTC550 printer/encoder for smartcard encoding with FCWnx

To use the Fargo DTC550 printer/encoder with FCWnx, you must download and install the printer driver. If you are using a Fargo printer with an internal OMNIKEY 5121 or 5125 encoder, you must download and install both the driver and API.

Notes

Make sure that the operating system is installed on an NTFS partition.

Do not have a Magstripe encoder specified under Printer Setup. Make sure it is set to None.

Do not have an external encoder configured when trying to use the internal encoder of the printer.

To download and install the DCT 550 driver:

1. Log on to your computer as the local administrator.

2. Before connecting the printer USB cables to the computer, download the DTC 550 driver from the following site.

   `http://www.fargosupport.com`

3. Run the printer driver installation. Connect the USB cable and power on the printer when prompted during the installation.

Note: When using a Fargo printer with an internal OMNIKEY 5121 or 5125 encoder, you must download and install both the driver and API.

To download and install the internal OMNIKEY 5121 or 5125 encoder driver:

1. Go to the following site.

   `http://www.hidglobal.com/driverDownloads.php`

   Select OMNIKEY from the drop down list.

   Under the Products drop down, select OMNIKEY 5125 Reader Board USB Prox.

   Under Operating System, select the appropriate O/S.

2. Download the following files:

   `CardMan_Synchronous_API_V1_1_1_4.exe`

   - Title: OMNIKEY Synchronous API for Windows
   - Size: 3232576
   - Description: OMNIKEY synchronous API (V1.1.1.4 – Release: 10/10/07 – 3927kB)

   `OMNIKEY5x21_V1_2_2_7.exe`

   - Title - OMNIKEY 5x2x Driver Self-Extractor (for manual installation)
   - Size – 229838
   - Description - PC/SC Driver for OMNIKEY 5121, 5321, 5125, 5325, 6321 (V1.2.2.7 - Release: 2010/01/20 - 225 kB - Windows 2000 / XP / 2k3 Server / Vista / 2k8 Server / Windows 7 - digitally signed for Win 2000, XP, Vista, 2k3 Server, 2k8 Server & Windows 7)

3. Install the `OMNIKEY5x21_V1_2_2_7.exe` (V1.2.2.7).

4. Run the `CardMan_Synchronous_API_V1_1_1_4.exe`.

This will extract the installer to C:\OMNIKEY\CardMan_Synchronous_API_V1_1_1_4.

Browse to this folder, and then run the `setup.exe`. You can verify this is installed by opening Add/Remove programs.

Appendix C
CCTV Interfaces

Summary

This appendix provides information for installation and configuration of CCTV interfaces.

Content

Overview 110
Software requirements 110
American Dynamics system 111
- Setup overview 111
- Hardware requirements 112
- Installation: American Dynamics 113
- Configuring alarms 115
- Adding, changing, or deleting CCTV alarms 115

Burle Allegiant system 117
- Setup overview 117
- Hardware requirements 118
- Installation: Burle Allegiant 119
- Configuring alarms 121
- Adding, changing, or deleting CCTV Alarms 122

Kalatel system 123
- Setup overview 123
- Hardware requirements 124
- Installation: Kalatel 126
- Configuring alarms 127
- Adding, changing, or deleting CCTV alarms 128

Pelco system 129
- Setup overview 129
- Hardware requirements 130
- Installation: Pelco 132

Configuring alarms 133
Alarms from the Pelco system 133
Alarms from FCWnx 134
Adding, changing, or deleting CCTV alarms 134
Mapping FCWnx alarms to CCTV alarms 135
Monitoring 136
Diagnostics 136
Removal of CCTV client interface 136

Overview

The CCTV Interface system operates separately from FCWnx and requires its own hardware and software. This document details the process of installing CCTV interfaces, including setup and configuration. It also contains information for the operating system once the interface is installed.

Integrated digital video surveillance configuration and management are detailed in the *FCWnx User Guide*.

Software requirements

For the CCTV system, you must have one of the following:

- For the American Dynamics System: None
- For the Burle Allegiant System: Allegiant LTC 8359/00 Master control software
- For the Kalatel System: None
- For the Pelco System: None

For the FCWnx system:

- FCWnx CCTV Interface program
- FCWnx software

American Dynamics system

The FCWnx - American Dynamics Interface supports the American Dynamics controller.

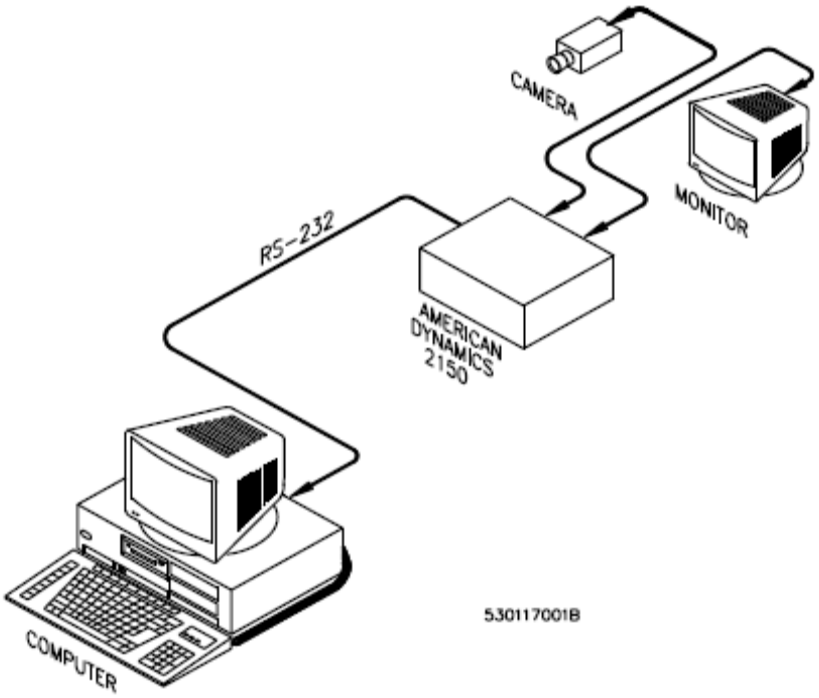
The FCWnx - American Dynamics Interface provides the capability to automatically control American Dynamics CCTV cameras and to monitor remotely when FCWnx alarms change state. To be able to monitor the alarms, the desired FCWnx alarms must be linked or “mapped” to the appropriate CCTV cameras set up in the American Dynamics system. When FCWnx receives the mapped alarm, FCWnx sends a message to the American Dynamics system to turn on the linked CCTV cameras and monitors. The American Dynamics system then controls the appropriate cameras and monitors. No operator intervention is required. As an alarm is cleared by the operator from the FCWnx Alarm Monitor form, or when the FCWnx alarm resets, the American Dynamics system is informed that the alarm is now reset and responded to and the appropriate camera turns off.

Setup overview

To perform a successful configuration, follow these steps:

1. Set up the FCWnx system and the American Dynamics system or verify the setup if this is an existing system. Figure 26 on page 112 provides a basic example of the hardware setup. See “Software requirements” on page 110 and “Hardware requirements” on page 112 for more information.
2. Install the FCWnx - American Dynamics software on the desired FCWnx computer. See “Installation: American Dynamics” on page 113.
3. Add CCTV alarms and then link or “map” the desired FCWnx alarms to the appropriate CCTV cameras set up in American Dynamics. See “Configuring alarms” on page 115 and “Monitoring” on page 136.
4. Once the FCWnx and American Dynamics systems are set up and configured, operation of the CCTV control feature is a hands-free procedure.

Figure 26: Overview of the FCWnx and American Dynamics interface

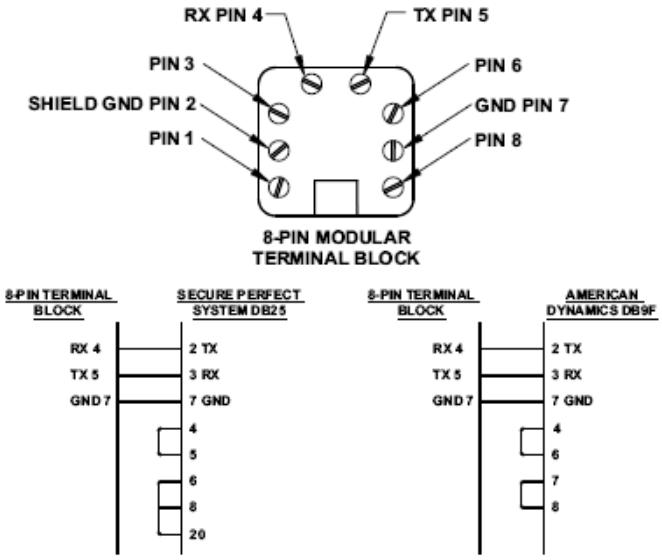


Hardware requirements

For the American Dynamics system:

- AD 2150 controller provided by American Dynamics
- CCTV cameras and monitors
- Cable to connect the FCWnx system and the American Dynamics switches.

Figure 27: Cable pinouts: terminal block to DB25F and terminal block to DB9F



For the FCWnx system:

- FCWnx computer

  Refer to “Installation: American Dynamics” below.

Installation: American Dynamics

This interface program has a separate installation utility in the FCWnx directory of the client computer or in the Client directory of the server computer.

The FCWnx - American Dynamics program can be installed at the same time the FCWnx system is installed or any time thereafter.

Note: Refer to your American Dynamics manual for DIP switch settings. They should be set to the default settings.

To install FCWnx - American Dynamics:

1. You must be logged in to the FCWnx computer with administrator privileges. If not, log out and log back in.

   Note: The client on which you are installing FCWnx must be able to communicate on the network with the License Domain Controller.

2. Click Start, then Run.
3. From the Run window, click Browse.

4. In the Look in box, select the hard drive on which FCWnx is loaded, such as (C:). Then, navigate to the directory in which FCWnx is installed. The default is Program Files\GE\FCWnx.
5. Select the CCTVInstall.exe.
6. Click Open.
7. In the Run window, click OK.
8. Provide the appropriate answers to prompts, and then click Next to continue.

   During installation, you are prompted with a few questions.

   Type of CCTV Interface: Select American Dynamics.

   Description or name for the interface: Enter a description for this interface, such as `Main Building CCTV`.

   Note: If multiple same-type CCTV interfaces are installed on a single FCWnx network, the description of each interface *must* be unique.

   COM port to which this interface is connected: Select the COM port.
9. Click Install to complete the installation.
10. Once the installation is complete, from the Control Panel, select System, Hardware tab, Device Manager, Ports. Select the COM port you previously selected in the installation and provide identical settings for baud rate, data bits, parity, stop bits, and flow control as your CCTV Controller's setup.
11. When you are ready to launch the CCTV program, you need to restart the FCWnx services on this client.
12. Once the system is running, log on to the computer as an FCWnx user and start the FCWnx application. Log on to FCWnx and from the Application pane, Monitors & Controls group, select Client Monitor. You notice an entry for the CCTV you just installed.
13. To start the CCTV application, you need to create CCTV alarms in the CCTV Alarm form first. Then you need to map the desired FCWnx alarm to CCTV on the Alarm form CCTV tab. See "Configuring alarms" on page 133 and "Monitoring" on page 136.
14. To start your CCTV interface, click Launch Client on the toolbar while the CCTV interface is selected. This starts the program that communicates with your CCTV switcher.

Configuring alarms

The communication between the FCWnx system and the American Dynamics system is one-way. FCWnx only sends data to the American Dynamics switcher; it does not receive any messages from American Dynamics. If the American Dynamics switcher loses communications with the FCWnx system, there will *not* be a Loss of COMM Alarm generated on the FCWnx system.

Only the loss of Client COMM Alarm is installed in the American Dynamics Interface. This alarm is generated from FCWnx when the FCWnx server is no longer able to communicate with the interface program.

Alarms from FCWnx

The FCWnx - American Dynamics Interface allows FCWnx alarms to trigger CCTV cameras/monitors to turn on or off on the American Dynamics system. Before this can happen, FCWnx needs to be notified as to which FCWnx alarms are to be the triggers and which messages need to be sent to the American Dynamics system to trigger cameras/monitors.

To configure correctly, follow the steps below. Each step is explained in more detail in the sections that follow.

1. Add, change, or delete the desired CCTV alarms. “Adding, changing, or deleting CCTV alarms” below.
2. Map FCWnx alarms to CCTV alarms. See “Mapping FCWnx alarms to CCTV alarms” on page 135.

Adding, changing, or deleting CCTV alarms

CCTV alarms are the actual messages that are sent out to the American Dynamics Interface. They control what sequence of monitors and cameras are switched on and off. The American Dynamics controller is preprogrammed to interpret these messages. (To program the American Dynamics controller, refer to the manual on the American Dynamics command console language.)

To add CCTV alarms within FCWnx:

1. From the FCWnx Application group pane, select Gateways & Interfaces, then CCTV Interface.
2. Click Add.
3. In the Description field, enter the appropriate description for your system. Example: American Dynamics CCTV Alarm

4. In the CCTV Interface field, choose American Dynamics.
5. In the CCTV Alarm field, choose the alarm number of the interface you are monitoring.
6. The Enable Message and Disable Message fields are automatically populated. Use these default settings.
7. In the Reset CCTV Alarm field, two reset choices for the alarm are provided: when the alarm is cleared from the Alarm Monitor, or when the alarm Resets. This means the Reset or the disable message can be sent out when the FCWnx alarm:
    - Is cleared from the Alarm Monitor
    - Resets
8. Click Save.

To change CCTV alarms within FCWnx:

1. From the FCWnx Application group pane, select Gateways & Interfaces, then CCTV Interface.
2. Click Search.
3. In the Search Result window, locate and then select the CCTV alarm you want to change. The alarm information now opens.
4. Make the desired changes.
5. Click Save.

To delete CCTV alarms within FCWnx:

1. From the FCWnx Application group pane, select Gateways & Interfaces, then CCTV Interface.
2. Click Search.
3. In the Search Result window, locate and then select the CCTV alarm you want to delete.
4. Click Delete.
5. You are prompted to verify your decision to delete. Click Yes to delete or No to keep the record.

Burle Allegiant system

The FCWnx - Burle Allegiant Interface supports the Burle Allegiant controllers TC8500 through TC8901.

A serial COM port is the only additional hardware requirement for FCWnx. It is used to communicate with the Burle Allegiant controller. A separate COM port can also be configured to report Video Loss detection, which is reported using the alarm monitor as a Video Loss alarm when one or more cameras lose its video signal. A separate video loss alarm is generated for each camera.

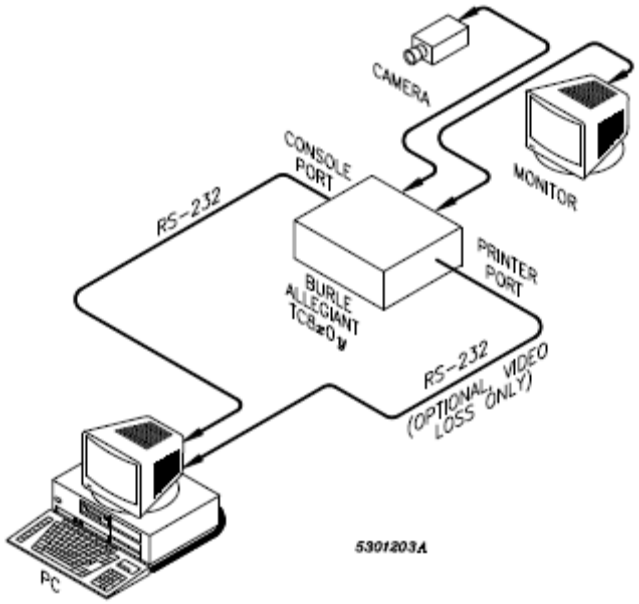
The FCWnx - Burle Allegiant Interface provides the capability to automatically control Burle Allegiant CCTV cameras and to monitor remotely when FCWnx alarms change state. To be able to monitor the alarms, the desired FCWnx alarms must be linked or “mapped” to the appropriate CCTV cameras set up in the Burle Allegiant system. When FCWnx receives the mapped alarm, FCWnx sends a message to the Burle Allegiant system to turn on the linked CCTV cameras and monitors. The Burle Allegiant system then controls the appropriate cameras and monitors. No operator intervention is required. As an alarm is cleared by the operator from the FCWnx Alarm Monitor form, or when the FCWnx alarm resets, the Burle Allegiant system is informed that the alarm is now reset and responded to and the appropriate camera turns off.

Setup overview

To perform a successful configuration:

1. Set up the FCWnx system and the Burle Allegiant system or verify the setup if this is an existing system. Figure 28 on page 118 provides a basic example of the hardware setup. See “Hardware requirements” on page 118 and “Software requirements” on page 110 for more information.
2. Install the FCWnx - Burle Allegiant software on the FCWnx computer. See “Installation: Burle Allegiant” on page 119.
3. Add CCTV alarms and then link or “map” the FCWnx alarms to the appropriate CCTV cameras set up in Burle Allegiant. “Configuring alarms” on page 121 and “Monitoring” on page 136.
4. Once the FCWnx and Burle Allegiant systems are set up and configured, operation of the CCTV control feature is a hands-free procedure.

Figure 28: Overview of the FCWnx and Burle Allegiant interface



Hardware requirements

For the Burle Allegiant system

- Allegiant (Models TC8500 through TC8901) controller provided by Burle
- CCTV cameras and monitors

Note: Refer to your Allegiant manual for DIP switch settings. They should be set to the default value.

Refer to your Burle Allegiant documentation for setup specifics.

For the FCWnx system

- FCWnx computer See “Installation: Burle Allegiant” on page 119, for installation instructions.)
- At least one serial port, or two if you plan on using the optional Video Loss monitoring. You may need to purchase and install a Digi board to provide additional COM ports to connect to the switchers.
- Cable to connect the FCWnx system to the Burle Allegiant switcher console port (See Figure 29 on page 119 and Figure 30 on page 119.)
- For the optional Video Loss monitoring, a second RS-232-C serial port

Figure 29: Cable pinouts: FCWnx system to switcher (DB25F to DB9M)

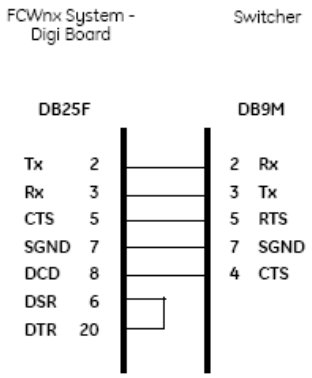
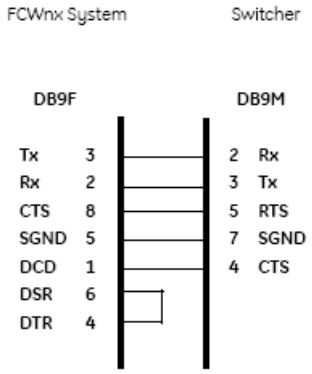


Figure 30: Cable pinouts: FCWnx system to switcher (DB9F to DB9M)



Installation: Burle Allegiant

This interface program has a separate install utility in the FCWnx directory of the client computer or in the client directory of the server computer.

The FCWnx - Burle Allegiant program can be installed at the same time the FCWnx system is installed or any time thereafter.

Notes:

Refer to your Burle Allegiant manual for DIP switch settings. They should be set to the default settings.

The client on which you are installing FCWnx must be able to communicate on the network with the FCWnx server computer.

To install FCWnx - Burle Allegiant:

1. You *must* be logged in to the FCWnx computer with administrator privileges. If not, log out and log back in.
2. Click Start, then Run.
3. From the Run window, click Browse.
4. In the Look in field, select the hard drive on which FCWnx is loaded, such as (C:). Then, navigate to the directory in which FCWnx is installed. The default is Program Files\GE\FCWnx.
5. Select the CCTVInstall.exe.
6. Click Open.
7. In the Run window, click OK.
8. Provide the appropriate answers to prompts, and then click Next to continue.

   During installation, you are prompted with a few questions.

   - Type of CCTV Interface: Select Burle Allegiant.
   - Description or name for the interface: Enter a description for this interface, such as Main Building CCTV.

   Note: If multiple same-type CCTV interfaces are installed on a single FCWnx network, the description of each interface must be unique.

   - COM port to which this interface is connected: Select the COM port.
   - COM port for video loss signal: OPTIONAL: Select a COM port to use as a second connection for the interface. Click Next.
9. Click Install to complete the installation. You need to stop and restart the FCWnx server for these changes to take effect.
10. Once the installation is complete, from the Control Panel, select System, Hardware tab, Device Manager, and then Ports. Select the COM port you previously selected in the installation and provide identical settings for baud rate, data bits, parity, stop bits, and flow control as your CCTV Controller setup.
11. When you are ready to launch the CCTV program, you need to restart the FCWnx services on this client.
12. Once the system is running, log on to the computer as an FCWnx user and start the FCWnx application. Log on to FCWnx and from the Application pane, Monitors and Controls group, select Client Monitor. You will notice an entry for the CCTV you just installed.

13. To start the CCTV application, you need to create CCTV alarms in the CCTV Alarm form first. Then you need to map the desired FCWnx alarm to CCTV on the Alarm form CCTV tab. “Configuring alarms” below and “Monitoring” on page 136.
14. To start your CCTV interface, click Launch Client on the toolbar while the CCTV interface is selected. This starts the program that communicates with your CCTV switcher.

Configuring alarms

The communication between the FCWnx system and the Burle Allegiant system is bidirectional, meaning that alarms are sent from FCWnx to the Burle Allegiant system and alarms are also sent from the Burle Allegiant system to the FCWnx system.

Alarms from the Burle Allegiant System

Two alarms can be generated from the Burle Allegiant CCTV system:

- Loss of COMM Alarm
- Video Loss Alarm

Loss of COMM Alarm

This alarm signifies that the interface program is no longer able to communicate with the Allegiant controller.

Video Loss Alarm

This alarm is reported only if you selected the optional video loss port during the installation of the FCWnx - Burle Allegiant software. A separate alarm is generated for each camera that is configured on the Burle system.

The first alarm is set up for you. However, the Video Loss Alarm requires that a special command be executed on the Burle Allegiant system to report this alarm. Refer to the Burle Allegiant documentation for more information.

Alarms from FCWnx

The FCWnx - Burle Allegiant Interface allows FCWnx alarms to trigger CCTV cameras/monitors to turn on or off on the Burle Allegiant system. Before this can happen, FCWnx needs to be notified as to which FCWnx alarms are to be the triggers and which messages need to be sent to the Allegiant system to trigger cameras/monitors.

To configure correctly, follow the steps below. Each step is explained in more detail in the sections that follow.

1. Add, change, or delete the desired CCTV alarms. “Adding, changing, or deleting CCTV Alarms” below.
2. Map FCWnx alarms to CCTV alarms. See “Mapping FCWnx alarms to CCTV alarms” on page 135.

Adding, changing, or deleting CCTV Alarms

CCTV alarms are the actual messages that are sent to the Allegiant Interface. They control the sequence of monitors and cameras are switched on and off. The Allegiant controller is preprogrammed to interpret these messages. (To program the Burle Allegiant controller, refer to the manual on the Burle Allegiant command console language.)

To add CCTV alarms in FCWnx:

1. From the FCWnx Application group pane, select Gateways & Interfaces, then CCTV Interface.
2. Click Add.
3. In the Description field, enter the appropriate description for your system. Example: Burle Allegiant CCTV Alarm
4. In the CCTV Interface field, choose Burle Allegiant.
5. In the CCTV Alarm field, choose the alarm number of the interface you are monitoring.
6. The Enable Message and Disable Message fields are automatically filled. Use these default settings.
7. In the Reset CCTV Alarm field, two reset choices for the alarm are provided: When the alarm is cleared from the Alarm Monitor, or When the alarm Resets.

   This means the reset or the disable message can be sent when the FCWnx alarm:

   - Is cleared from the Alarm Monitor
   - Resets
8. Click Save.

To change CCTV alarms in FCWnx:

1. From the FCWnx Application group pane, select Gateways & Interfaces, then CCTV Interface.
2. Click Search.

3. In the Search Result window, locate the CCTV alarm you want to change, then select it. The alarm information now opens.
4. Make the desired changes.
5. Click Save.

To delete CCTV alarms in FCWnx:

1. From the FCWnx Application group pane, select Gateways & Interfaces, then CCTV Interface.
2. Click Search.
3. In the Search Result window, locate the CCTV alarm you want to delete then select it.
4. Click Delete.
5. You are prompted to verify your decision to delete. Click Yes to delete or No to keep the record.

Kalatel system

The FCWnx - Kalatel Interface supports the Kalatel controller KTD-348.

The FCWnx - Kalatel Interface provides the capability to automatically control Kalatel CCTV cameras and to monitor remotely when FCWnx alarms change state. To be able to monitor the alarms, the desired FCWnx alarms must be linked or “mapped” to the appropriate CCTV cameras set up in the Kalatel system. When FCWnx receives the mapped alarm, FCWnx sends a message to the Kalatel system to turn on the linked CCTV cameras and monitors. The Kalatel system then controls the appropriate cameras and monitors. No operator intervention is required. As an alarm is cleared by the operator from the Alarm Monitor form, or when the FCWnx alarm resets, the Kalatel system is informed that the alarm is now reset and responded to and the appropriate camera turns off.

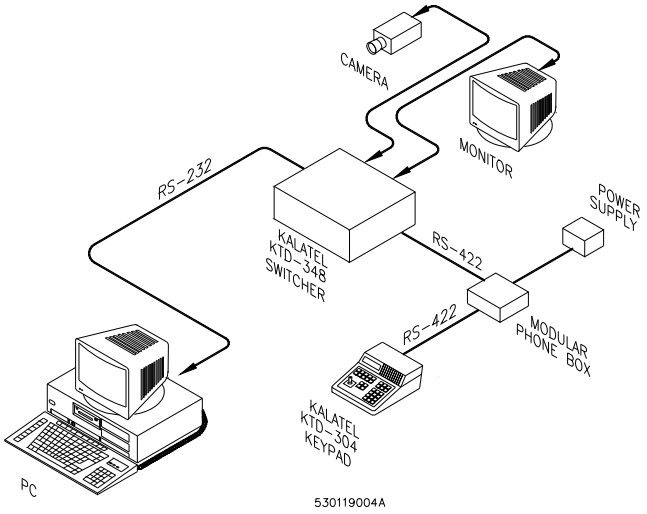
Setup overview

To configure a Kalatel system:

1. Set up the FCWnx system and the Kalatel system or verify the setup if this is an existing system. Figure 31 on page 124 provides a basic example of the hardware setup. See “Software requirements” on page 110 and “Hardware requirements” on page 124 for more information.

2. Install the FCWnx - Kalatel software on the desired FCWnx computer. See “Installation: Kalatel” on page 126.
3. Add CCTV alarms and then link or “map” the desired FCWnx alarms to the appropriate CCTV cameras set up in Kalatel. “Configuring alarms” on page 127 and “Monitoring” on page 136.
4. Once the FCWnx and Kalatel systems are set up and configured, operation of the CCTV control feature is a hands-free procedure.

Figure 31: Overview of the FCWnx and Kalatel interface



Hardware requirements

Kalatel system hardware requirements

- Cable to connect the KTD-304 keypad to the KTD-348 switcher. (Refer to Figure 32 for cable pinout information.)
- CCTV cameras and monitors
- KTD-348 controller provided by Kalatel
- KTD-304 keypad provided by Kalatel

FCWnx system hardware requirements

- FCWnx computer

Refer to “Installation: Kalatel” on page 126.

- Cable to connect the FCWnx system from Kalatel KTD-348.

Figure 32: Cable pinouts: KTD-304 to KTD-348For the FCWnx System

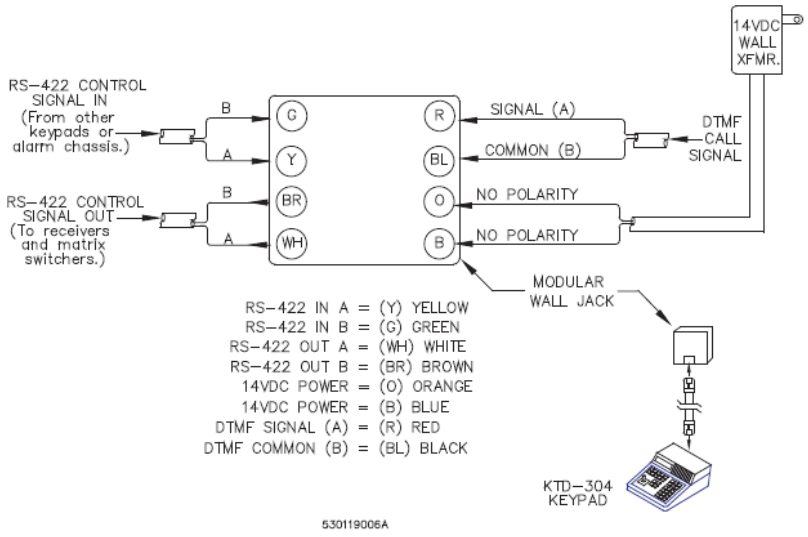
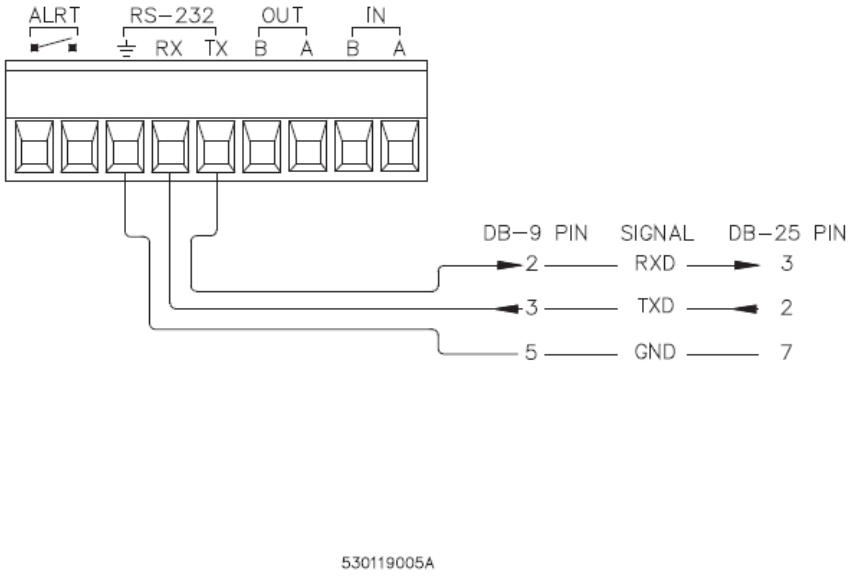


Figure 33: Cable pinouts: FCWnx to Kalatel KTD-348



Installation: Kalatel

This interface program has a separate install utility in the FCWnx directory of the client computer or in the Client directory of the server computer.

The FCWnx - Kalatel program can be installed at the same time the FCWnx system is installed or any time thereafter.

Note: Refer to your Kalatel manual for DIP switch settings. They should be set to the default settings.

Note: The client on which you are installing FCWnx must be able to communicate on the network with the License Domain Controller.

To install FCWnx - Kalatel:

1. You must be logged in to the FCWnx computer with administrator privileges. If not, log out and log back in.
2. Click Start, then Run.
3. From the Run window, click Browse.
4. In the Look in field, select the hard drive on which FCWnx is loaded, such as (C:). Then, navigate to the directory FCWnx is installed. The default is Program Files\GE\FCWnx.
5. Select the CCTVInstall.exe.
6. Click Open.
7. In the Run window, click OK.
8. Provide the appropriate answers to prompts, and then click Next to continue.

   During installation, you are prompted with a few questions.

   - Type of CCTV Interface: Select Kalatel.
   - Description or name for the interface: Enter a description for this interface, such as Main Building CCTV.

   Note: If multiple same-type CCTV interfaces are installed on a single FCWnx network, the description of each interface must be unique.

   - COM port to which this interface is connected: Select the COM port.
9. Click Install to complete the installation.
10. Once the installation is complete, from the Control Panel, select System, Hardware tab, Device Manager, Ports. Select the COM port you previously selected in the installation and provide identical settings for baud rate, data bits, parity, stop bits, and flow control as your CCTV Controller’s setup.

11. When you are ready to launch the CCTV program, you need to restart the FCWnx services on this client.
12. Once the system is running, log on to the computer as an FCWnx user and start the FCWnx application. Log on to FCWnx and from the Application pane, Monitors and Controls group, select Client Monitor. You will notice an entry for the CCTV you just installed. (For FCWnx 2.1 and EE 1.1, from the Administration menu, select Client Management.)
13. To start the CCTV application, you must first create CCTV alarms in the CCTV Alarm form. Then you must map the FCWnx alarm to CCTV on the Alarm form CCTV tab. “Configuring alarms” below and “Monitoring” on page 136.
14. To start your CCTV interface, click Launch Client on the toolbar while the CCTV interface is selected. This starts the program that communicates with your CCTV switcher.

Configuring alarms

The communication between the FCWnx system and the Kalatel system is one-way. FCWnx only sends data to the Kalatel switcher; it does not receive any messages from Kalatel. If the Kalatel switcher loses communications with the FCWnx system, there will *not* be a Loss of COMM Alarm generated on the FCWnx system.

Only the loss of Client COMM Alarm is installed in the Kalatel Interface. This alarm is generated from FCWnx when the FCWnx server is no longer able to communicate with the interface program.

Alarms from FCWnx

The FCWnx - Kalatel Interface allows FCWnx alarms to trigger CCTV cameras/monitors to turn on or off on the Kalatel system. Before this can happen, FCWnx needs to be notified as to which FCWnx alarms are to be the triggers and which messages need to be sent to the Kalatel system to trigger cameras/monitors.

To configure correctly, follow the steps below. Each step is explained in more detail in the sections that follow.

1. Add, change, or delete the desired CCTV alarms. See “Adding, changing, or deleting CCTV alarms” on page 128.
2. Map FCWnx alarms to CCTV alarms. See “Mapping FCWnx alarms to CCTV alarms” on page 135.

Adding, changing, or deleting CCTV alarms

CCTV alarms are the actual messages that are sent out to the Kalatel Interface. They control what sequence of monitors and cameras are switched on and off. The Kalatel controller is preprogrammed to interpret these messages. (To program the Kalatel controller, refer to the manual on the Kalatel command console language.)

To add CCTV alarms in FCWnx:

1. From the FCWnx Application group pane, select Gateways & Interfaces, then CCTV Interface.
2. Click Add.
3. In the Description field, enter the appropriate description for your system. Example: Kalatel CCTV Alarm
4. In the CCTV Interface field, choose Kalatel.
5. In the CCTV Alarm field, choose the alarm number of the interface you are monitoring.
6. The Enable Message and Disable Message fields are automatically filled. Use these default settings.
7. In the Reset CCTV Alarm field, two reset choices for the alarm are provided: when the alarm is cleared from the Alarm Monitor, or when the alarm Resets.

   This means the Reset or the disable message can be sent out when the FCWnx alarm:

   - Is cleared from the Alarm Monitor
   - Resets
8. Click Save.

To change CCTV alarms in FCWnx:

1. From the FCWnx Application group pane, select Gateways & Interfaces, then CCTV Interface.
2. Click Search.
3. In the Search Result window, locate and then select the CCTV alarm you want to change. The alarm information now opens.
4. Make the required changes.
5. Click Save.

To delete CCTV alarms in FCWnx:

1. From the FCWnx Application group pane, select Gateways & Interfaces, then CCTV Interface.
2. Click Search.
3. In the Search Result window, locate and then select the CCTV alarm you want to delete.
4. Click Delete.
5. You are prompted to verify your decision to delete. Click Yes to delete or No to keep the record.

Pelco system

The FCWnx - Pelco Interface supports the Pelco controller CM9760.

The FCWnx - Pelco Interface provides the capability to automatically control Pelco CCTV cameras and to monitor remotely when FCWnx alarms change state. To be able to monitor the alarms, the desired FCWnx alarms must be linked or “mapped” to the appropriate CCTV cameras set up in Pelco. When FCWnx received the mapped alarm, FCWnx sends a message to the Pelco system to turn on the linked CCTV cameras and monitors. The Pelco system then controls the appropriate cameras and monitors. No operator intervention is required. As an alarm is cleared by the operator from the Alarm Monitor form, or when the FCWnx alarm resets, the Pelco system is informed that the alarm is now reset and responded to and the appropriate camera turns off.

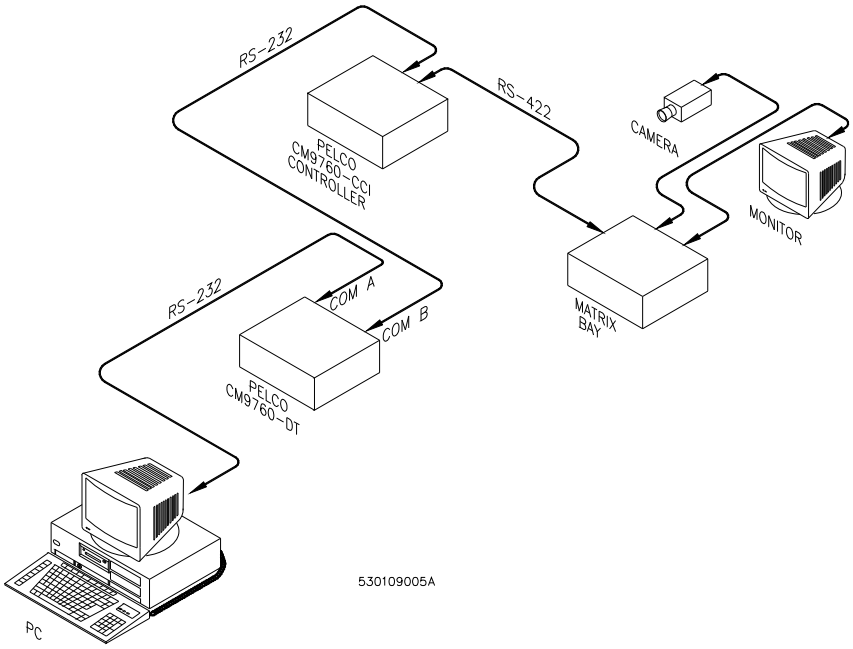
Setup overview

To configure a Pelco system:

1. Set up the FCWnx system and the Pelco system or verify the setup if this is an existing system. Figure 34 on page 130 provides a basic example of the hardware setup. See “Software requirements” on page 110 and “Hardware requirements” on page 130 for more information.
2. Install the FCWnx - Pelco software on the desired FCWnx computer. “Installation: Pelco” on page 132.
3. Add CCTV alarms and then link or “map” the desired FCWnx alarms to the appropriate CCTV cameras set up in Pelco. “Configuring alarms” on page 133 and “Monitoring” on page 136.

4. Once the FCWnx and Pelco systems are set up and configured, operation of the CCTV control feature is a hands-free procedure.

Figure 34: Overview of the FCWnx and Pelco interface

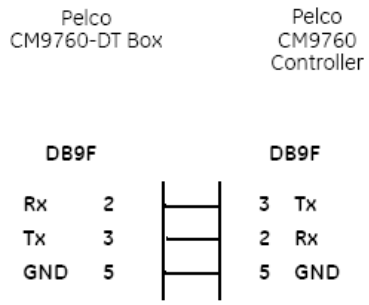


Hardware requirements

Pelco System hardware requirements

- Cable to connect the CM9760-DT box and the controller (Refer to Figure 35 on page 131 for cable pinout information.)
- CCTV cameras and monitors
- CM9760 controller provided by Pelco
- CM9760-DT box provided by Pelco
- Pelco CCTV equipment

Figure 35: Cable pinouts: CM9760-DT box to controller (DB9F to DB9F)



FCWnx System hardware requirements

- FCWnx computer
- Refer to “Installation: Pelco” on page 132.
- Cable to connect the FCWnx system and the Pelco CM9760-DT box.

Figure 36: Cable pinouts: FCWnx to Pelco CM9760-DT to DB9F

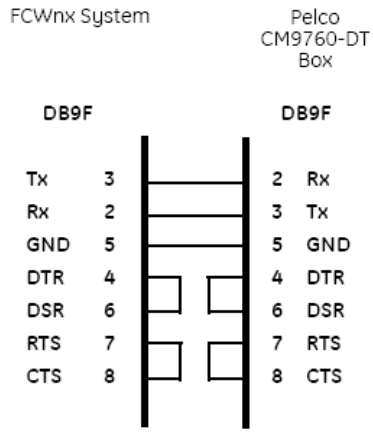
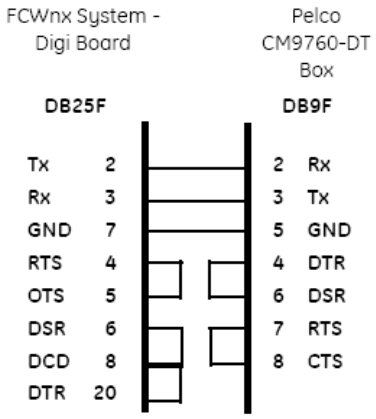


Figure 37: Cable pinouts: FCWnx system to Pelco CM9760-DT (DB25F to DB9F)



Installation: Pelco

This interface program has a separate install utility in the FCWnx directory of the client computer or in the Client directory of the server computer.

The FCWnx - Pelco program can be installed at the same time the FCWnx system is installed or any time thereafter.

Note: Refer to your Pelco manual for DIP switch settings. They should be set to the default settings.

Note: The client on which you are installing FCWnx must be able to communicate on the network with the License Domain Controller.

To install FCWnx - Pelco:

1. You must be logged in to the FCWnx computer with administrator privileges. If not, log out and log on again.
2. Click Start, then Run.
3. From the Run window, click Browse.
4. In the Look in field, either select the hard drive on which FCWnx is loaded, such as (C:). Then, navigate to the directory where FCWnx is installed. The default is Program Files\GE\FCWnx.
5. Select the CCTVInstall.exe.
6. Click Open.
7. In the Run window, click OK.
8. Provide the appropriate answers to prompts, and then click Next to continue.

   During installation, you are prompted with a few questions.

- Type of CCTV Interface: Select Pelco.
- Description or name for the interface: Enter a description for this interface, such as Main Building CCTV.

Note: If multiple same-type CCTV interfaces are installed on a single FCWnx network, the description of each interface must be unique.

- COM port to which this interface is connected: Select the COM port.

9. Click Install to complete the installation.
10. Once the installation is complete, from the Control Panel, select System, Hardware tab, Device Manager, and then Ports. Select the COM port you previously selected in the installation and provide identical settings for baud rate, data bits, parity, stop bits, and flow control as your CCTV Controller's setup.
11. When you are ready to launch the CCTV program, you need to restart the FCWnx services on this client.
12. Once the system is running, log on to the computer as an FCWnx user and start the FCWnx application. Log on to FCWnx and from the Application pane, Monitors and Controls group, select Client Monitor. You will notice an entry for the CCTV you just installed.
13. To start the CCTV application, you need to create CCTV alarms in the CCTV Alarm form first. Then you need to map the desired FCWnx alarm to CCTV on the Alarm form CCTV tab. "Configuring alarms" below and "Monitoring" on page 136.
14. To start your CCTV interface, click Launch Client on the toolbar while the CCTV interface is selected. This starts the program that communicates with your CCTV switcher.

Configuring alarms

The communication between the FCWnx system and the Pelco system is bidirectional, meaning that alarms are sent from FCWnx to the Pelco system and alarms are also sent from the Pelco system to the FCWnx system.

Alarms from the Pelco system

Only one alarm can be generated from the Pelco CCTV system: Loss of COMM Alarm.

This alarm signifies that the interface program is no longer able to communicate with the Pelco controller.

Alarms from FCWnx

The FCWnx - Pelco interface allows FCWnx alarms to trigger CCTV cameras/monitors to turn on or off on the Pelco system. Before this can happen, FCWnx needs to be notified as to which FCWnx alarms are to be the triggers and which messages need to be sent to the Pelco system to trigger cameras/monitors.

To configure correctly, follow the steps below. Each step is explained in more detail in the sections that follow.

1. Add, change, or delete the desired CCTV alarms. See “Adding, changing, or deleting CCTV alarms” below.
2. Map FCWnx alarms to CCTV alarms. See “Mapping FCWnx alarms to CCTV alarms” on page 135.

Adding, changing, or deleting CCTV alarms

CCTV alarms are the actual messages that are sent out to the Pelco Interface. They control what sequence of monitors and cameras are switched on and off. The Pelco controller is preprogrammed to interpret these messages. (To program the Pelco controller, refer to the manual on the Pelco command console language.)

To add CCTV alarms within FCWnx:

1. From the FCWnx Application group pane, select Gateways & Interfaces, then CCTV Interface.
2. Click Add.
3. In the Description field, enter the appropriate description for your system. Example: Pelco CCTV Alarm
4. In the CCTV Interface field, choose Pelco.
5. In the CCTV Alarm field, choose the alarm number of the interface you are monitoring.
6. The Enable Message and Disable Message fields are automatically selected. Use these default settings.
7. In the Reset CCTV Alarm field, two reset choices for the alarm are provided: when the alarm is cleared from the Alarm Monitor, or when the alarm Resets.

   This means the Reset or the disable message can be sent out when the FCWnx alarm is cleared from the Alarm Monitor, or resets.
8. Click Save.

To change CCTV alarms within FCWnx:

1. From the FCWnx Application group pane, select Gateways & Interfaces, then CCTV Interface.
2. Click Search.
3. In the Search Result window, locate the CCTV alarm you want to change then select it. The alarm information now opens.
4. Make the desired changes.
5. Click Save.

To delete CCTV alarms within FCWnx:

1. From the FCWnx Application group pane, select Gateways & Interfaces, then CCTV Interface.
2. Click Search.
3. In the Search Result window, locate and then select the CCTV alarm you want to delete.
4. Click Delete.
5. You are prompted to verify your decision to delete. Click Yes to delete or No to keep the record.

Mapping FCWnx alarms to CCTV alarms

Before you begin, make sure that you have:

- Added CCTV alarms (see previous section)
- Configured the micros so that you have FCWnx alarms to map (refer to the Online help for assistance)

To map FCWnx alarms to CCTV alarms:

1. From the FCWnx Application group pane, select Gateways & Interfaces, then CCTV Interface.
2. Click Search.
3. In the Search Result window, locate and then select the FCWnx alarm you want to map. The alarm information now opens.
4. Select the CCTV tab.
5. Click Add/Remove.

6. The CCTV alarms you added in the previous step display.
7. Select the desired CCTV alarm you would like to map to the FCWnx alarm.
8. Click to assign an alarm. If you would like to unassign one, select the desired CCTV alarm from the list on the right and click.
9. When you are done assigning alarms, click OK.
10. Click the Alarm tab. Verify that the Monitor field is enabled.
11. Click Save.

Monitoring

When you added CCTV alarms, the Reset CCTV Alarm field provided two reset choices for the alarm: when the alarm is cleared from the Alarm Monitor, or when the alarm Resets.

If you selected when the alarm is cleared from the Alarm Monitor, then you need to clear the FCWnx alarm from the Alarm Monitor before the RESET message is sent to the controller.

However, if you selected when the alarm Resets, you can observe the results on the Allegiant system as FCWnx alarms are SET and RESET (indicated by the red and green LED on the FCWnx Alarm Monitor).

All FCWnx alarms that trigger CCTV alarms must be monitored.

Diagnostics

A diagnostic object called CCTV reports all diagnostics for all CCTV interfaces on the client. For details of the diagnostic utility, refer to your FCWnx Online Help.

Removal of CCTV client interface

The FCWnx CCTV client interface program is removed when you delete the client interface from any one of the FCWnx client computers.

Note: You must first remove all CCTV alarm mapping before you can delete the CCTV client interface.

To remove the CCTV client interface:

1. From the Application pane, Administration group, select Client to open the Client form.
2. Click Search to display all records.
3. Select the CCTV client.
4. Click Delete on the FCWnx toolbar.